

PERSONAL REMINISCENCES

OF A FORESTER

1907 - 1931,

by

Stuart Bevier Show

Written at the request of

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circa 1955?

My First Year in the Forest Service,
1910 - 1911

I missed the pioneer year of 1905, but I worked for the Service as a day laborer, at \$2.00 per days work^{ed}, on the Shasta during my 1907 vacation. We ran lines, cruised timber, made volume tables, marked a timber sale, built hay-wire telephone lines and trails. There weren't any fires in our lines. Since there were unfortunate lapses in being on the payroll and the government mess, and paying was done by Washington after a month or so delay, we wage-slaves (six of us from Stanford) ran short of cash and jungled out at Big Springs above Sisson, living on the discarded vegetables and meat and bread that the village merchants couldn't peddle-- and pure foods ideas were definitely broad and tolerant in those days. Anyway we made it.

During one of the payroll gaps, the six of us got pretty tired of having the Forest Assistant, one D. C. A. Galarneau, stall along in the office and put us off from day to day on getting out of town. So, in teams of two, we hiked to the hayfields of Shasta Valley, the McCloud Mill and the logging job at Rainbow out to the west, seeking gainful employment for six willing hands. Success was unanimous, and we informed the F.A. "work or else". That did it, though he was unreasonably resentful. It was one of the shorter and more successful strikes against management, not recommended as a current model.

Before that - winter of 1905-1906 - I had been subjected to the charm and fire of Gifford Pinchot at his best in a lecture at Dr. Jordan's University where I was a freshman, embarked on a queer mixture of economics, languages, mathematics, English and biology. G.P. was proselyting for this new thing, forestry, and I got took into camp. When he poured it on, the audience melted.

After that I switched from economics to systematic botany as a major. Dr. W. R. Dudley, head of the department, was a fine and scholarly gentleman, one of the very early disciples of G.P. From him I learned much, particularly something about how to read the face of nature - what would now be called ecology. I was darn busy during college, making up an extra semester. Family and personal finances. There weren't scholarships, G.I. Bills, etc.

Thus I became one of that gang of guys who had something quite different picked out as a career, and who got their minds changed. The Shasta episode was just to make sure I would go ahead, which I did via Yale Forest School (1910), where I absorbed a lot of stuff based on the advanced forestry of central Europe - the wet summer cradle of timber and watershed forestry.

Thanks, I guess to H. H. Chapman, we also had pounded into us the then approved methods of cruising, mapping, surveying and making volume and growth tables, all of which arts were regarded as essential in young foresters' lives. Also I learned a lot of useless dendrology and other stuff.

Forest fires were barely mentioned.

Dean H. S. Graves was rather amiable in letting me out of several courses at Sheff. I'd already had superior substitutes at Stanford. Also he let me do some of my field work alone on Sundays. Thus I got through in 1½ years, and a good thing, too, for I had to borrow at the end.

Anyway, I passed the Forest Assistant C.S. and, in due course (July 1, 1910), was instructed to report to the District Forester in San Francisco. It was a young bunch of brass and friendly. They took me to lunch, bought a drink, and amiably told me to go along, as I ignorantly wished, to the Shasta. Fritz Olsted, the boss, must have been all of 35. Coert DuBois, Associate, was a ripe old veteran of 28. T. D. Woodbury, who claimed title to all "tech asses", Lou Barrett, John Hatton, Swift Berry, a practically beardless youth, Walter Huber, Roy Headley are the others I remember. The gals were mighty pleasant, too.

So to Sisson with my bedroll and very little cash, where I checked in with Supervisor Dick Hammatt and dangled his first daughter (aged 10 months) while I got my induction briefing, which consisted of Transportation Requests (thank God) and instructions to take over the timber reconnaissance crew on Trinity Mountain after I'd scaled up scientifically the timber trespass case on Bonanza King. Dick was a veteran of four years' service - young fellows who caught the eye of bosses moved fast.

My help on B.K. were Fred Hansen, an ex-railway mail clerk, District Ranger at Trinity Center, and Fred Williams, ex-choir boy in Westminster Abby, a "Cousin Jack" who had abandoned hard rock mining for the life of a ranger at Coffee Creek. It was a sort of catch-as-catch-can job. We scaled stumps inside bark, paced the used length, and, using some taper tables for Maine spruce, I whipped up a volume table for the red fir the mine had stolen. There was, in due course, a collection made.

Then on to the party, which included John Coffman as Chief, Ed Munns, ~~an~~-student from Michigan forest school, as a lean, fantastically energetic member at \$60 per month and found, and several local yokels, together with a tobacco-chewing white-whiskered cook, who was building up a stake to go back to mining. The juice dribbled down his luxuriant zits, but we never actually saw it go any further. One of the lads, a lusty and husky boy, was there on account of he'd been run out of Sisson for raping a presumptively reluctant gal. He claimed she wasn't.

My job, when I shortly took over, was to see that we had grub in camp via the three-a-week stage or by chartered carrier, personally and alone map the alternate S.P. sections, hunt up corners when we moved camp, check occasionally on the lads' tallies and maps, assemble the maps in camp, rustle a rancher to move us, lay out the work, and other little things. Beef was a bit a pound from old Bill Foster. An old ewe was \$3 from Jim Heavey.

Some of the lads were resentful because I refused the luxuries. Stewed dried fruit and an occasional rice pudding

with raisins had to do for desserts. We did it cheap.

Early in the show, Woodbury and Phil Harris, Hammatt's deputy, hove in to "inspect". While I was nervously trying to convince them you couldn't run four miles of cruise strip a day, a large and flourishing smoke showed up in a general southeast direction. Phil towed us all down to the foot of the Clear Creek grade, bummed some shovels and axes at the Whitney Ranch and, about dark, kicked us off cross-country while he hiked on to French Gulch for reinforcements. After a hard night stumbling around (they didn't have Colemans or flashlights) we made it to the fire and attacked same. One of the local boys claimed he had been on a fire, so he was looked up to as a big authority. We rassled it around in ways that were strictly non-handbook. I remember doing imprudently a sort of "boy stood on the burning deck" one afternoon when a brush slope exploded at me. By some judicious retreating and frantic picking up spots over the ridge, I wrangled my problem out. Eventually Phil got there with some much needed help and grub, and we put it to sleep and went home to camp and regular eating. We later handled other fires - by then we were seasoned veterans.

Just after being a hero on the front, I had my one and only bear adventure. Holding the line alone - and relaxing - on a tiny rill which was a flank of the fire, I suddenly heard a great rattling of stones above me. A large and angry bear had gotten himself out in the hot and loose shale, which made up the forest soil so lately bared by that hot, flashy brush

fire. Gallumping and sliding along in a young landslide, he suddenly got the hotfoot, snarled to himself and sat up to lick and soothe his burning tootsies. The inevitable quickly happened and his sitter gave acute pain, whereupon he snarled again and switched his ministrations; whereupon, etc. I was too weak from laughter to do any escaping if he had seen me from 40 feet away - but he didn't, and eventually skip-stopped to more comfortable terrain. I am reminded of A. A. Milne's delightful Winnie the Pooh, universally hailed by his comrades as "The Bear of No Brain".

From our first camp, too, my only catamount adventure. Ed Munns and I started out north along the Trinity-Sacramento divide to do a distant section. I had my compassman's outfit, and he was supposed to have the rest of the paraphernalia. Ed wasn't the most orderly and systematic guy, and a half mile out he suddenly started to ^Slap and paw himself and poke around in the carrying case. The tally book wasn't there. So with - I imagine - a sneer, I sent him back for same and, slowing down, went on along the ridge, looking back occasionally and muttering to myself. We were serious about our work. Pretty soon I saw a big cat following along, sniffing my tracks and twitching the tip of its tail. My speed picked up pronto, though I had no plan other than to fight to the end with my jacob staff if, as and when. Meanwhile Ed, ^Ihoping to make up for lost time, noted fresh lion tracks on top of mine, and he was in a tizzy. Having more nerve than judgement, he kept right on, expecting to find my mangled remains behind each and every pine tree. The cat, just curious no doubt, got bored with it all

and dropped down the hill in due course. It was just hanging near Jim Heavey's sheep, living well, and with only academic interest in skinny young Forest officers. But for briefly I didn't know that.

Well, we moved on up river by jumps, getting acquainted with a bunch of characters to whom we were curiosities, not to say freaks. One of the sourdoughs who heard we were coming his way, picked up a section corner post and set it in a new location to prove that the land he had fenced was his, and was belligerent and just hurt when I took him to the witness trees he chose to ignore. Old Hi Bragdon, a transplanted Down-Easter and confirmed bachelor who made the most deadly soda biscuits you ever flopped a lip over, was always ready to leave his garden patch and show me a corner. Mrs. Ellery, saddled with a moderately worthless bunch of men folks and bustling to run the Trinity Center Hotel, was a trusting friend till I got my first paycheck and could pay up for on-the-cuff charges. Old Mary Dodge, who had come to the country as a bride in the 1850's, saddled with really worthless men and a definitely submarginal ranch, was a salty and profane, tough and spry little woman of character and a good friend. Fred Williams had a priceless and unprintable lot of stories about her.

When my first paycheck came, I proudly sent half to my sister, Esther, in Palo Alto to buy a long delayed engagement ring for my girl, Mabel Griffin. The rest of the check went on school bills.

E Ed Munns and I, on our supposed days off, climbed the various high granite peaks and left our names in tomato cans on top. Thirty odd years later, Forest Service surveyors found some of same and were apparently impressed that the then august Regional Forester had done such things in his youth. Once, when we ran into the famous fake surveys of Trinity County, Ed and I took off, packs on our backs, to run a line and find out where our new camp at Preachers Meadows was. It took two hard days and proved there weren't any lines or corners. So we compromised by going ahead on dead reckoning - not very precisely, but we covered the country.

On our first move, from a trivial incident I learned the priceless lesson that an acceptable decision made promptly is better than a better one made slowly and late. We'd already decided to camp along the Trinity at the mouth of Bragdon Gulch. From road to river was maybe a couple hundred yards with a flowing stream, dead and down wood, and lots of sandbars - all our simple needs. My compadre, John, went rushing back and forth, seeking perfection, while our teamster got madder and madder. Evening was coming on, and he had a long way to go. Finally I told him, "Put her off here" - in five minutes he was on his way, with the feeling remark, "Well, thank God someone can make up his mind!" John, returning eventually, was hurt and irritated, but there we camped.

On our move from Bill Foster's ranch to Preacher Meadows, I'd made a finger bet contract with subsistence rancher John Linton to do the job for five bucks. He assumed the road was

still O.K. Shortly we found the surface had washed away, and masses of serpentine boulders were all that was left. He broke harness and double ⁸tr~~ies~~es and we had a hell of a time.

Then he demanded ten bucks and I refused. A contract was a contract. There was much embittered talk and later letters to the Supervisor. Fortunately he was a prudent New Englander and I was sustained.

I sure was prudent about Uncle's money.

Well, we ran out of money about October first, it started to rain, and my boss Hammatt sent word (no telephones) that I'd better get back for the fall seeding campaign, which Secretary of Agriculture Jimmie Wilson had passed on down.

One of the early "experts" - one Torgeson, a nursery operator from Southern California - had picked the thickest and most impenetrable brush fields (the Shasta had them) in the McCloud country - Cold Creek and Black Fox - as the areas to be salvaged. I rustled a crew off Whiskey Row (of which more later) together with several reluctant rangers and guards, and we plodded over and set up camp. It was very frustrating. The braves got to remarking that the chipmunks and whitefooted mice would no longer wait till the seed was covered, but ran up your pants leg to get it easier out of the seed ⁵ack. Not so far off at that. Anyway, we wound up our quota and went back to town. I had Dutch Gullaway on that first crew.

Then John Coffman and I ^Cstealed up a big trespass in chill⁶November on Long-Bell. Enroute to the logging camp, we dropped off the train at Grass Lake and headed over to the hotel.

A bad moment - the wife was flying around having hysterics; the man duck hunting, had tripped in the tules and blown the three middle fingers of his left hand off. Blood, bits and pieces of bone and flesh, black powder grains and fragments of wadding were scrambled in an unsightly mess. I finally found out the household did have some spirits of turpentine and, getting John to help hold the poor guy, I doused the wound good while he screamed. No phone, no train, no way to get to the nearest doctor at Weed. Next morning we got him on the down train, and the M.D. opined the rough and brutal treatment had prevented infection. You never knew what you'd run into with no mother or book-learning to guide you.

Then I got a short office hitch doing the required reports on the reconnaissance and seeding projects. Also there were some special "technical" reports required by Woodbury which I did on a very flimsy basis. Every tech ass was presumed to be a scientist - which turned out to be a highly optimistic hope. Anyway, you did what you were told.

By mid-December I'd paid off my school debts and had a couple hundred smackers that had never been spent. So girl friend and I decided to get married at her home in Everett, Washington, Christmas Day. My 7 1/2 days leave just fitted. By the time we got to Sisson, I had just five bucks left. I installed her in a chilly and far from elegant house with outside detached sanitary facilities, which were uncomfortable of access in a snowstorm, where she got sick; showed her the wood supply; introduced her to the grocer, butcher and milkman, gave

her the five bucks and a comprehensive power of attorney (which she still has after 45 years) and broke the news that I was leaving for several months of winter reconnaissance. The Hammatts were wonderful to her, and she got through the winter.

This is a good place to tell about Sisson and life therein, and let the story of winter reconnaissance go for the moment. You won't appreciate Sisson unless it's all in one piece.

Sisson, with its 300 in and adjacent souls, was a hell of a place to take a girl. Diagonally across the S.P. tracks from the dowdy station and appurtenant hotel was a narrow block with the freight station and Eugler's brewery; then a board walk and dusty Main street; then an open sewer ditch which had its own quality; then the elevated board walk with its loafers and drunks of varying degree; then Whiskey Row, the dominant feature of the town. Seventeen saloons, with only Adelina Costello and O. Krauman's tiny groceries, Negro Stone's little barber shop, and Negro Brock's shoe shine stand tucked in, filled the block. A couple of Chinese had restaurants in back rooms, and a couple of upper floors were rooming houses of a sort and convenient places of assignation. But from Blacky Potter's bastion at the north to Tony and Bob Casalta's at the south, the fake-front ranks of gin mills held sway.

Most of the time the Forest Service wives could prudently and modestly take the board walk across the street. But in winter they had to settle for a nervous parade along the Row. Mabel liked it not at all. Actually none of the girls was ever "accosted" or bothered.

Back of the Row was a noisome alley where we learned to grab fire fighters when one of our guys would flush them out of the bars. Then Al Koletzke's livery stable and Dan Carlton's blacksmith shop anchored the back corners of the block, with Fred Kuch's undertaking establishment nearby.

Toward the mountain, houses and shacks trailed out into the brush. Somewhere up there was Dr. Wong, the Chinese herb doctor.

North from The Row was a mostly vacant block, then the Bel Coronado Hotel and bar, last chance for the northbound thirsty and the least worst dining room in town, run by the bustling Mrs. Wright, who supported a thoroughly worthless and alcoholic husband. Then the Gregorys, domicile of various young technicals, till they escaped by marriage or transfer. Then, after an open gap, Pioneer Box Factory, one of the few payrolls.

South from The Row on the track side were, first, the expansive Schuler-Knox General Store, to which Forest Service families were perennially in debt. Above it, up steep and narrow stairs, were the far from elegant Forest Service offices. Along the street came the tiny Post Office, old reprobate Sam Metcalf, presiding; little cigar-smoking Kaiser's Mens Furnishings, sole competitor to the majesty of Schuler-Knox, MacIlmoyle's jewelry store; Jim Makings Drugs, Cameras and Notions; the fire house with its man-drawn equipment and fire bell. On along old man Green had his pasture and barn. A couple of stalls were the Forest Service central fire tool warehouse at \$5 a month.

Across Main Street from Schuler-Knox, amiable Ed Lawless' Drug Store anchored the block. Then came the Opera House in which occasional local talent or touring road shows put it on; the butcher shop of Charlie Gooch, who had the most valuable right hand in town - it had been weighed uncounted times on his spring scales. Then Allingham's hardware store, followed by Harper's magazines, newspapers and sundries. Madame A. and Lady Harper were the preeminent and unflagging she-gossips of our village. Then the professional district: red-headed and oft-drunken lawyer Otto Haese; seedy and oft-drunken hophead Dr. Burke; unsanitary old dentist Fuller, who poked around with dirty, cigar-stained fingers; more sanitary young dentist, Doc. Rockfeller; competent and unstable Dr. Wright, who retired to a far-off village practice after a professional scandal in Chicago; notary and money-lender Hunt, who robbed without affection. Hunt also ran the water works. Somewhere in the block was the tiny factory of Dutch Charlie Klein, who, using nature's gift, his own saliva, made the Shasta Lily and Shasta Rose cigars. A true cottage industry.

On both sides of Main as it ambled south were the large and small houses of more permanent residents. A large one was that of drayman Bill Rogers and his brood. The houses soon petered out into the brush.

Below the tracks from the depot came, first, the block of natural wet meadow. For it we paid S.S. \$5 per head per month pasturage for our steeds until they went to Shasta Valley for the winter. In summer it served as the baseball diamond.

Then the two plus blocks of the two churches and of houses. At the north end the center of the Forest Service colony was set up when the Hammatt's bought. In a few years the canny John Schuler built several new cottages nearby, which by now must have been paid for many times by Forest Service tenants. Then the long stretch of meadow to the Fish Hatchery and resort area. One resort was Sisson Tavern, owned and run by the queerish family for whom the village was currently named. The other was Berryvale Inn, owned and run by surveyor Henry Ream. Berryvale was the original name of the village, and Henry was bitter about the change. Both resorts had fine and far flung reputations, and did a big business during the brief summer tourist season.

Near the Catholic Church was the little one-woman primary school. If kids were to go higher, they had to move to Yreka and attend the County High School.

A half-mile south of the business district and below the tracks was another business center - Cold Creek, the red-light district. The Row and Cold Creek had their big rush seasons when the lumberjacks from McCloud and Weed operations hit town for the Fourth of July drunk and again when logging closed down in the fall. Then the jacks had their blow in before hitting the ties, the brakerods or the blind baggage for a long winter in Sacramento or San Francisco. During these rushes the itinerant tin-horn gamblers - "Curly" Harris et al - drifted into town to annex some of the loosely-spent summer wages of hard-working men.

Near town, Frank Lawrence, the mayor, and John Gregory had their truck-garden and Bisson strawberry enterprises. The rich organic loam produced abundantly, and they were good farmers.

Above the tracks, Henry Gilloon had his dairy. Farther out and to the west, the Barrs had their competitive dairy. Delivery during snowstorms could be rough, but both were dependable, and housewives got their shallow tin pans filled on schedule.

Far out ~~the~~ to the west, little old Henry Johnson cut and delivered oak and fir cordwood at \$5 a California cord. Mike Culligan, with his big wagon and matched team of greys, handled the mill end blocks from Pioneer, at \$3 a load. You had to stack your own wood - and the girls of necessity got in on it.

Village handyman was dirty and unappetizing Henry Schneider, who performed first aid on balky plumbing systems, dug graves and filled in as whilom night watchman.

The police was big, burly, rough, mean Town Marshall Dave Rinckel, who broke up barroom brawls that got out of hand, beat up the more troublesome drunks, ran itinerant peddlers out of town, and otherwise upheld the peace and dignity of government. He was known as a regular patron of the two trouble centers - The Row and Cold Creek. But Dave did a job of protecting citizens from the drunk, disorderly and lawless. They just stayed on the Row or at Cold Creek, and front doors could be left unlocked.

There was ^a J. P. Court which sat as and when required. Otto Haese and Henry McGuinness alternated as Judge. When one had a client, the other sat - and vice versa. A nice, neat system. Henry was quite a guy. Partly educated, he'd been a bartender and saloon-keeper. In odd moments he studied law and passed the then bar examination. Eventually he was elected Assemblyman and served for several terms.

The church was wise, sophisticated, urbane and worldly Father Carr who, on the Sabbath, held services in Dunsmuir, Sisson and Weed and was available, on notice, for weddings and funerals of his flock. Occasionally a hopeful young Protestant minister would attempt to revive regular services for one of the several competitive denominations, but to little effect. Many of us Protestants knew Father Carr and valued the acquaintance. Occasionally, to be sure, he'd have a few too many, and the informal group around town who watched over the public behavior of the leading and substantial citizens would unobtrusively convoy him home. At such times the good Father would wonder aloud whether he'd chosen the wrong profession. But he was good people.

The lodges had a quiet but effective system of supplying help to the needy - the widows, the aged and infirm. A member would make the rounds of the saloons, stores and professional people, levying the assessment, and a member would see that the needful was done and paid for. Lacking the modern systems of governmental handouts, that's all there was to it. The village handled its own social security problems.

Another service was provided by Chinese laundryman Sing. If housewives didn't like the odor, they could negotiate with the several ladies who eked out by taking in washing. Or, as usual, do it themselves.

Finally there was the ex-con, a hard-looking but gentle bear of a man, who contracted with householders, particularly in winter, to build the morning fires and carry in the day's supply of wood. Of course, doors were left open for him. One winter when I was away, as usual, Mabel had a warm house in which to arise - at \$5 a month. He was a hard-working fellow.

Winter had other problems for the Forest Service wives whose men were gone - getting supplies when snow was deep and soft. After the Forest Service introduced web snow shoes and sleds this winter of 1910-11, there would always be one man who picked up orders, tied them on and delivered. One winter Bill Gracey, the clerk, had to be the hero during a severe week-long snowstorm. Nobody ever starved or suffered. In due course, all the men had their turn at this form of self-help.

So our village was self-contained. The Forest Service was welcomed, not because of its noble purpose and program, but because it brought a growing payroll to a town which had passed its heyday of the logging. How Schuler-Knox resented it when we'd send to one of the big supply houses in Sacramento for non-perishables, thus beating the Schuler-Knox formula of a profit on the goods and a profit on the freight.

But, like I said, it was a hell of a place to bring a girl. The tight little Forest Service colony developed in self-defense. We had a few carefully (we hoped) screened town families as friends - the Jim Taylors (S.P. agent), the Claire Jordans (Box factory manager), the Pete Merrills (order and delivery boy for S-K and son-in-law of the Berryvale Inn), Norman Sisson (charming and alcoholic scion of the Tavern), the Ed Lawless' (leading drug store). For intellectual interest, we lived off ourselves. Socially we were mostly aloof.

Let me sketch the sort of social life we developed. At the start there were two pianos in the colony - the Hammatt's and ours. They had great social prestige value, especially as Lucille H. and Mabel and I could play after a fashion, and M. and I did some rousing duets. So the pianos were for self-entertainment and, on occasion, when we were in the mood, the rugs would be rolled back and we'd take turns doing waltzes and two-steps. In our case, the piano was acquired ahead of the bed - strictly speaking, the down payment was made. We treasured our accumulations of music and occasionally added to them.

For reading - since there was no library - we divided the magazine subscriptions. Initially, the Hammatts would get Colliers and Ladies Home Journal; we would pinch off for Saturday Evening Post and Good Housekeeping. From hand to hand the magazines went - they got attention and action. New books were few and far between - one as a birthday or

Christmas present was an event. They too got action.

On an occasional evening there'd be one or two tables of old-fashioned whist. Later we took up the new and advanced game of bridge. The hostess was expected to serve coffee and cake.

Rarely there'd be a really big event - a masquerade party. The girls would root around in the family accumulations, borrow and confer back and forth, use their imaginations and come up with some startling get-ups.

High points would come when the rare visitors from the District Office showed up. Then the girls would decide who invited whom when, and what the main dish would be. Wild-catting was strongly discouraged, as an occasional ambitious hostess discovered.

To entertain in the mode, flowers were required, and there was no florist. So, in due course, husbands were gently but firmly pushed into a little yard work. One year I broke up - with much labor - the heavy tight sod, worked up the rich soil and planted seeds. Then Mabel had to tend the results. Lo and behold, her sweet peas and cosmos bloomed profusely, and thereby she acquired much prestige. Also she was wealthy enough to provide liberal bouquets for the other girls.

Of course meeting the trains was a social event for the girls, particularly on the frequent occasions when one or more of the men were going or coming.

Fourth of July was the big event of summer. There were always speeches, horse races, log-rolling contests on the Station's big fish pond, log-bucking contests and other such simple pastimes, all against a background of earnest drinking up and down the Row. There was a fatality about the Fourth - a fire call was to be expected, and some of us would catch up and saddle up and miss the rest of the fun.

When all else failed, there was the party telephone line, and it got used plenty and at all hours. At times Madame Harper - who was Central - would cut in to relay a bit of news or gossip. There were few secrets in our village.

Occasionally during the summer, by special preparation and arrangement, one of the girls would catch her man long enough to have him crank out a batch of ice cream, and it would be shared with the others. That was indeed a special event. Mabel endeared herself to Lucille H. by taking over a fine plate of roast pork on the rare occasions when our puny budget could stand such luxury. Richard abhorred fresh pork, though he was a sound trencherman on ham. Lucille loved it.

Well, all this must sound very dull to the younger set of today, but we didn't know it was, and we had a good deal of fun at our simple affairs. Of course, I've bunched things as they happened for several years. It was strictly a self-help social circle.

Ever since Inspector John Hatton chose Sisson as headquarters (1906), Forest Service people have been asking with more or less anguish, "why?" To which the only answer is "what~~e~~ else." The alternatives were so much worse in those horse and buggy days.

Dunsmuir, down in the canyon, was B.P. division headquarters only. Weed, also on the mainline, was almost wholly a company town. McCloud, on the branch railroad from Sisson, was also a company town. Both these big companies, having their own vast timber empires, wanted to keep their towns in full control. They had no need for National Forest timber. Their only interest in the Forest Service was unfriendly - it would cramp their styles in the prevailing practice of trespassing government as they came to it.

Sisson, though not even a county seat, was on the main line and thus officers could make the stage and logging railroad lines which tied to it. Via McCloud Railroad they had access to connecting stages. Sisson was a supply center as well. Rentable houses, office space and pasturage were readily available, as they were not at the others. So John made a wise, if unhappy, decision.

After this long detour about Sisson, it's time to get back to my immediate problem. The first venture in winter reconnaissance. This project, dreamed up by Dick, was based on a justified fear that the rangers wouldn't be busy otherwise, and because the whole McCloud country was so brushed up from

fires and logging that covering it in summer was no go. The idea at the time was that all the National Forests would be covered by a cruise and map as fast as possible.

That first crew of rangers was an assorted lot of tough guys. Bob McInroy, a hard-headed and stubborn Scotch lumber-jack; Art Thorne, a wiry and roving redhead from the Bowery; Shorty White, a 6-foot 5-inch cowpoke from a Klamath River subsistence ranch; Hershel (Hub) Simpson, a rolling stone who had messed around in Alaska, worked for Wells Fargo in San Francisco and done various other dissimilar jobs; Lou Lorenzen, a Shasta County ranch boy who had been latterly a timber locator. Some of their personal lives would get a strongly minus rating in terms of Christian morality, but they were the sort of fellows who were building and enforcing a new code of decency in using the public forests. Nobody shoved them around and they had no hesitation in shutting down sales for non-compliance, running trespassing stock off, pinching game law violators or tackling any of the other chores needed to convince the local citizens that Uncle meant business.

The journals, histories and memoirs of those early days make it sound as if it was the brass that made the National Forest project go. They set the framework and checked performance, but it was the slogging foot soldier, the ill-educated ranger, who brought the lofty idealism to the rough and stony ground of reality and made it stick.

For a young, somewhat educated, fellow like myself to be accepted by such two-fisted guys, he had to prove himself in the game they knew. The crafts and skills of the mountain man,

ability to "take it" and willingness to work with no amenities and few conveniences, were imperative. For my purported learnedness they had a marked lack of respect and awe, but they were responsive to "on-the-job training" in cruising and mapping, and we ended up getting along together.

After dragging in heavy sleds over the new soft snow to the cabin and setting up camp, the daily routine that winter was breakfast by lantern light so we could get out to starting point by daylight while the snow was good. The rangers had a weekly rotation of housekeeping. We took very little lunch. By midafternoon the snow was soft and heavy, and we got pretty worn down after from two to four miles of cruise line plus up to ten miles going and coming. So back to camp, usually a hot toddy - we always had whiskey, but no serious drinking. Then a huge supper, after which I'd work on maps and notes until early bed time. I kept them at it every clear day. A couple of the lads were going to insurrect because I demanded Sunday work, on the virtual certainty we'd lose weekday time when it stormed. I told them "O.K., I'll give you a note to take to Hammatt." So they grumbled and hated me but went to work. I was clear that either I was boss or I wasn't. Fortunately there was no silliness about eight hour days and forty hour weeks. When it snowed we necessarily kegged up and played 5 and 10 solo. Believe me, I learned that cut-throat game the hard way.

Two episodes might have turned out badly. One of the insurrectees and I, after an exhausting day on webs, had to

face a driving snow storm to get back several miles to the old log cabin, with darkness coming on. Wearier and wearier we got. Every step we took in the soft and heavy stuff was a new effort of will. Finally my pardner just went down and decided to rest. At first I could get him going by cajolery; then by insults; then by slapping his face; and finally nothing worked. We finally made it - he was a small man and I had just enough left to push, pull and carry him the last piece. I suppose that's what's called "getting your third wind". You end up not caring to eat and unable to sleep, feeling no pain, just wanting to set and not think.

The other time another guy got snowblind far out in a glaring snowfield on Ash Creek Butte on a brilliant, sunny day. We solved that one by covering his eyes with a dirty bandana, and I led him in at the end of the Jacob staff. The medicine kit consisted of table salt and baking soda, and, using a clean dish towel, with these in hot packs he got through a very painful time.

Like most "adventures" these were the result of bad judgment and poor preparation. That's how we learned.

Our grub outfit, for which we profanely and correctly blamed the Supervisor, shortly developed critical gaps. The boys got to saying I could smell a storm coming and two of us would take off downhill with one of our ponderous sleds, empty, put in a day getting to railhead, get over to Sisson as snow began to fall, wait out the storm, and then put in two hard days dragging a loaded sled uphill to camp over a new and soft

and clinging blanket of snow. At least I got to see my bride, hear the trains whistle, and report progress to the Supervisor.

I finally talked him into coming out to inspect. By that time we were a hardy bunch and I don't think we intentionally made it easy on Dick's office softness. But he could take it, too, and he sure was a better man for it. Dick wrote an article about it for the Proceedings of the Society.

From Deter Camp we moved to the old Ash Creek Ranger Station, and from there to Pilgrim Creek Nursery. One day a couple of the guys found three cowbrutes yarded in up by the old Ash Creek mill a few miles north of camp. Miraculously they'd stayed alive to early March, but were skinny and weak. A trip out for grub was due, so we got word to the owner in Shasta Valley, he came back with the boys, and we started rescue operations. We tramped out a trail of several miles to the mill, hog-tied and lashed a critter on a sled, and then at night, while the snow was crusted, drug them one by one the ten miles to the McCloud Railroad at Bigelow. The owner took over from there. All we got out of it was a bottle of Yellowstone whiskey and the satisfaction of working out another problem. No wonder we got right proud of ourselves.

On all these summer and winter timber reconnaissance jobs you had to learn tricks of the trade: how to pick up section lines and find corners where the ^bglazes had been made 30-40 years before, and fire had run over the country several times; how to run a good line with a pocket compass; how to pace accurately on all sorts of slopes and with all sorts of cover; how to make a respectable topog. map of the abundant private

Shasta permanent methods of cutting sample plots on Parkes Creek, with the usual ranger help.

As Fiscal Year 1911 ended, Phil Harris went onward and upward to R-6, and John Coffman ditto to the Trinity. In lieu thereof appeared Raymond Tillotson, Purdue engineer, as Deputy and a queer character, wearing a hard-boiled hat and choker collar, named Edward Kotok, Michigan forester, as Forest Assistant. Back, too, came veteran Ed Munns for another whirl at reconnaissance.

So began what turned out to be a lifelong association, paralleling and crossing of the official lives of Hammett, Kotok, Munns and myself. We were, I think, lucky to have been in on the edge of the pioneering with its rough and tumble, catch as catch can, improvising where there were no rules to guide or to restrict the chance to experiment, its demands on initiative, ingenuity and resourcefulness. It was still a fresh and exciting world, and you couldn't move without finding things that needed to be studied, new trails that needed to be blazed, jobs that had to be done, new country to explore with the forester's eye. Certainly none of us was timid or humble or inhibited in diving off into the unknown and drawing sweeping conclusions about same, based on highly unorthodox and unscientific methods (mathematical statistics had not yet imposed its rule) and often on skimpy technical data. We didn't settle all questions for all time, but we learned a lot and trained ourselves after a fashion. You had to learn the art or science of observation, to believe what you see, to relate cause and effect under

land with least special work; how to train people on crews to do such things. And you had to learn how to get back to camp cross country after the day's stint. Then there was learning to estimate by eye the diameters and heights of trees.

Finally spring was around the corner and we pulled the pin. A joint ranger meeting with the Klamath gang in Sisson gave a fine chance for some of my gang to go off the long diet of involuntary virtue and show the visiting firemen the facilities for relaxation of which our little village boasted. The brass were conveniently blind to the peccadillos of the boys, some of which were on the lusty and spectacular side.

Spring brought a varied round of assigned tasks. Examining the seeding areas, to confirm that the rodents had cleaned up; installing nursery research projects at the new Pilgrim Creek Nursery; taking District Entomologist John Miller over the snow to look over a bug-riddled lodgepole and yellow pine area we'd found above Deter Camp the winter before. He got a bad case of "mal de racquet" and I had troubles therefore and had to sled him to Deter Camp. When he gave the forest some money I rustled a crew, set up camp, and ran the operation till the money gave out. Working with John Coffman and a couple of the hardy rangers on preparation of a big long-term sale to La Molne Lumber and Trading Company, including much embittered argument with the woods boss - a tall and massive character named Alfendahl, nick-named "High Pockets" - who objected to the "second cut of pine in thirty years" basis for the sample marking. Woodbury came up, and John and I gently and firmly slipped the hassle to him. Then John and I installed the first

natural law, free of the bemusing dominance of man-made social theory or the despotism of economic doctrine. You had to learn something about leadership and being the boss in a small and constricted but real world. It was all highly illiterate compared to the massive technical knowledge of today. It was highly unspecialized - you tackled unfamiliar jobs you were told to do. You got a chance to show your wares, if any, and the bosses looked them over. It was a far piece from the ordered and fractionalized world of today. You had to absorb some of the crafts and skills of the men of the mountains, their resourcefulness, self-reliance, ingenuity and savvy. That first year was an incomparable training course for a young fellow.

Ed Kotok and I put in four years together under Dick, foraying and experimenting around. That's the next chapter.

The Shasta Years with Ed Kotok - 1911-15.

Things started to happen fast July 1, 1911. Another timber reconnaissance party was to start over in Trinity where I'd left off the year before. I briefed Ed Kotok, who was to be Chief, helped assemble the outfit, advised him to consult veteran Ed Munns, and kicked him off. Also I instructed him to put in an experimental thinning plot in an area of second growth south of Trinity Center, which the boys did. The vision of "intensive" forestry was very bright, even if somewhat optimistic and naive.

Then the first and greatest range scientist, the late Jim Jardine, sent out two of his bright boys, Arthur W. Sampson and W. A. Dayton, to select a series of exclosure plots (to be fenced later) and to make a study of the effect of grazing on reproduction, which was a hot question. Automatically Dick said, "You take 'em", and I convoyed them around the Scott District with Ranger Frank Cunningham. The Trinity District, where Jardine joined us briefly, and the McCloud Country. The lads were earnest but awful green in the practicalities of life in the wild west, and the hardy rangers got lots of sinful joy out of it. They didn't enjoy the plot work - the experts picked them where cedar posts and wire would have to be packed in a long way. But the plots got fenced - orders. When I left they were abandoned.

Dick always liked to take off on a pack trip with one of his rangers as soon as the new fiscal year was launched. Of

course he'd be out of touch. If his deputy was around he'd be Acting. But in July, 1911, he wasn't and I got told, "She's yours, Bevier." I was doing alright - I hoped - when one day Simmie came up from Castella to tell he'd caught one Geisendorfer cutting government in trespass up the hill from Cantara, and that the stuff was decked ready for loading along the S.P. All I could find to guide me was that government property was sacred, and there were some "Property of the U.S." signs in the storeroom, so I sent Simmie to tack them on and tell Geisie he could move the stuff when he paid up. Next day my trespasser came bellering and bawling to the office. He was a big, rough, loud guy and scared hell out of me. But I had no place to retreat, so I necessarily stood pat, and he finally sent in to the U.S. Depository at \$2 per M. I'm a little vague just how we set quantity and value. After the shooting was over, Geisie grinned, stuck his big paw across the desk and said, "Kid, you're all right."

Of course I was pretty darn proud of myself and at once reported it all to the D.O. Back came a long and detailed memo from one H. P. Dechant, Assistant to the Solicitor, saying I couldn't do that, it was illegal and improper, etc. Geisie said, "To hell with it. I got caught." So the deal stood. I heard that District Forester DuBois got a kick out of it. His general idea was that laws were to sanctify what you were going to do anyway. Such was my bow in high power administration.

J. Alfred Mitchell, District Office expert on "studies", showed up to look over the varied nursery, planting, sample plot, etc., things, and I toured him and convinced him of their

and our merits. Bill Hodge, expert (his title said so) in timber reconnaissance, showed up to check the cruises of our winter work, of which we were so proud. The District Office brass had a rather sour and cynical attitude toward it. I solved that one by leading Bill to the brushiest section of all, at the foot of Black Fox, where he got so deep in manzanita and snow brush, tore his shirt and pants and got wore out, that he quit in disgust, reaching the sound conclusion that you couldn't cruise the damn country in the summer anyway. He took revenge by insisting that "silvical notes" about reproduction, soil and such, had to be gathered. Of course you couldn't get them in winter. So I worked on Dick and got it fixed that Kotok and Munna would do that job after summer reconnaissance was over.

A couple of times I went over to their summer camps to check and cheer them on. An application for a big new timber sale in Castle Creek and vicinity came in, and the crew worked that country.

Then there was the first of various fires in the ancient Sisson brushfield, and I learned a little more about such things, tore my clothes off and had to sneak into town after dark, rather to my bride's surprise.

My bride had talked John Schuler into building a fine new cottage for us (\$18 per month rent) and then we had to get furniture and the \$100 a month budget got stretched.

The new LaMoine operation was starting up, and I'd go up and mark enough timber to hold them a while, resist "High Pockets"

Elfendahl's pleas for more sugar pine, and go over the logging with Bob McInroy, officer in charge. Getting to and from the LaMoine Mill and town was always a problem and chore - no railroads, just a slow freight team over the long, dusty, winding road, and the catwalk along the 3 mile V-flume. Bundles of lumber coming down the flume threw a wall of water ahead, and there was no place to dodge, so walking the flume was a wet job. I tried them all. Legs were a necessary part of life.

LaMoine and Castle Creek were, of course, the "big" sales, each with a resident officer in charge. But there were always one or two "small" sales, each cutting perhaps six or eight thousand feet a day, not enough to justify a resident. Variously there was the Penoyar sale out near Bray; the Davis-Field sale in Parks Creek about 6 miles west of Edgewood; the Sheldon sale in Eddy Cr., also about 6 miles out from Edgewood.

I got assigned to all of these in turn. For Penoyar I'd take the noon S.P. to Weed, grabbing a much-prized dining car meal en route, then get the slow train over the Weed-Klamath Falls line to Penoyar, arriving around 4; then go out in the woods to scale up, mark another jag of timber, check on stump heights and tops, get a meal at camp at old man Bray's ranch home; sleep and breakfast there; back to the operation to finish up; the morning rattler to Weed; then the long wait for the mainline train, during which I'd add up the scale book or go over to the sawmill, the sash and door, box and veneer plants to learn something; home about 5. That one was just long and tedious.

For the others it was noon train to Edgewood, meal en-route; walk to operation; scale, mark and check; supper at camp; walk back to Edgewood; home about 10 P.M. The guys who later buzzed out to such detached operations in government cars never knew how good they had it.

One of the expediency tricks we had to work out was to appraise timber so it would sell and make it look accurate and scientific. Swift Berry was inventing appraisal methods and insisting everyone use them. McCloud and Weed would, in mowing down their empires, occasionally come to a 40 or 80 of government that the locators had missed and let it be known they'd condescend to take it - if the price was right. Then the first job was to fish around with company bosses and find out what top price they would go to. This took some ingenuity. Then you knew what your answer had to be and started figuring back. The companies did not let you see their costs, and you had to do some fairly sketchy guesstimating of all the separate items and the total.

I remember once I'd done a job on a Weed application and the general manager, the suave S. O. Johnson, came in to Hammatt to talk about it. S.O. took out his little black book, beguiled Dick into giving all the detailed figures, while I sat by and squirmed. "Well", S.O. would say, "you give 65% for falling and the figure is 39% etc., etc." Mostly I was within 100% plus or minus on details, but I hit the total good. So at the end S.O. opined it was the damndest thing he ever heard of - to get a correct answer from incorrect components. Anyway the sale was

made and Swift and Woodbury never knew how their cherished system was used.

You couldn't win. If you didn't make the sale, the bosses kicked about lost opportunities. If you did make the sale, they kicked because you didn't get full value.

Late in the summer my young brother, Joe, came up to visit and had a great time riding my hobbling "Baldy" around.

In late fall Tillie and I took off with a team and buckboard to scout for a winter stand to the east of the first winter's job. The sketchy forest map showed roads and stockwells, and the status showed practically solid government. No forest officer had ever seen the country. We finally found a track, brushed in at the sides and with down trees across it; it came on to snow, and early darkness set in. All we could do was to keep going. Finally there was a pool of water in a little clearing. We fumbled around in the dark, got our little 7x9 tent up, got a feeble fire going, dipped up some water and made coffee. It tasted queer, but it was hot. Then we took the now well-cooled off nags for a drink. They snorted and refused. So we did our best for them - nose bags, hay and a blanket apiece, and kegged in.

Come daylight we found we were in a sheep hedground, and our "well" was surface water in same. It explained things. We found the solid government was mostly lava beds. Tillie, with his engineer's mind, made road signs from a crackerbox for the guidance of future unfortunates. We christened our camp "Hambone Well", on account we finished our hsm there. Many years later

when the U.P.R.R. ran its main line through there, they took our name for one of their stations. Hal Montgomery, liveryman at McCloud, was kinda sore to get back a pair of gaunt and weary beasts. Tillie and I, tough young men, were in fine shape and were big authorities on that country. We settled for Slagger Creek and Harris Springs in the McCloud operating area.

Come fall, my bride decided to visit the folks in Everett, Washington, since I was never home anyway, and away she went. Pretty quick I got a wire saying she'd had an emergency appendectomy with complications, was O.K. and please send a hundred bucks right away. Boy! I borrowed all I could from village money lender, Hunt, at the usurious rate of 18% p.a. plus "costs". In my desperation I borrowed \$20 on the cuff from bartender Frank Montgomery, who refused to take interest and even gave me a bottle of Yellowstone when I paid up much later. I remember him with warmth and affection. There were such people in disreputable occupations. The rangers spent money in his bar - but not me. It took two years, five or ten bucks at a time, to dig out from under. Mabel and I learned to love liver and heart, top round and an occasional leg of goat, masquerading as sheep, from Charley Gooch's butcher shop - they were cheap. Dick kept me so busy I had darn little time to follow my cherished hunting and fishing, though rarely I'd supplement our diet that way. I was out for eating-meat, not "sport".

When John Coffman left I inherited the undone "Silvical Report", which was to cover in detail the types, conditions, soils, tree and shrub species, enemies, etc., etc., of the whole

forest. My District Office boss, Woodbury, started to nag about it, taking the view that I'd been there for more than a year and so should know all about such things. The only thing to do was stall and promise big things for "next year". I hadn't been near the Squaw Creek, Big Bend and Canyon Valley Districts and none of the rangers were what you'd call big authorities on botany and such. Everywhere I went I kept lists of species, notes about brushfields, types and such, and made stump analyses on cutovers. But this undone job sure sat on my neck.

In October I kicked off the two Eds on the winter reconnaissance silvical notes, for which they didn't love me. But they poked around in the brush and tore their clothes and did the job. Then, since Pilgrim Cr. Nursery was turning out its first 1-1 yellow pine, I got together a crew and we planted in various places on the McCloud side, including the Sec. 30 burn south of the nursery. We finally got snowed out and that was that.

In late November I was bid to the Supervisors' meeting in San Francisco. They had a scheme then that each Forest Assistant would get this, would be put on the program, show his wares and get looked over by the brass. I probably had to address on winter reconnaissance or the planting work. About all I remember was being darn nervous, getting a chance to meet supervisors and others, and being drafted to play the piano in various places, including a night club, when the choicer spirits

of the gang were in a mood for song during the night-shift rovin'g. They had fun!

Then back home for an office hitch, writing "technical" reports, getting the status books ready for the winter job, and making up the Annual Nursery Report, with lots of emphasis on costs. Mabel came back, hale and hearty, and we got acquainted with the F.S. families and a few of the towns people. Come January, 1912, I helped get the winter reconnaissance outfit together, briefed Ed Kotok and sent them on their way to Slagger Creek.

The District Office had another scheme for training and looking over the young technicals, and I shortly got the treatment. You would be assigned to each Division for a few days, and the chief thereof would sling you a "case" to deal with. You had to do it by rooting in files, studying the manual, and with prayer. Of course there were some nice gals who knew far more about it than I did, and they would gently guide me to the sources of authority, which helped. When you came up with your solution, the Division Chief would accept or reject with appropriate comments. I remember my troubles in Grazing: The Manual was fuzzy and vague, as it remained, and all I knew on the subject you could put in your eye and never feel it. Incidentally I explored with much pleasure the many fine French restaurants in San Francisco - on an expense account.

This scheme, the Supervisor meetings, the on-job training of inspectors, the assignments to varied "study" and operating jobs, were the calculated means by which all of us young

technicals were trained, tested and appraised. The theory was that future leaders would come from our crowd. Some made it and some didn't.

My sister, Ruth, was learning to be a lady at Mills College and bid me over to a dance. I didn't feel good, but went along. Next day my chops started to swell and it was diagnosed as mumps. So I made a run for the train back to Sisson. By the time I got there the porter, conductor and passengers were viewing me with suspicion, but let me go through. A considerable epidemic developed at Mills and I don't think Ruth made any comment. From later events it's evident that the disease didn't affect me as it did George Washington.

Back home at the end of March, 1912, Ed and I did some "experimental" planting up in the "Sisson Burn" of the previous summer. We'd got hold of the idea that spring planting on recent burns was better than fall - which it turned out to be. Then we developed a scheme for recording the situation for each plant on sample rows, which we staked out with lath - shade, size and vigor, damage and its cause, growth if any, and whether the plant was live, sickly, dying or dead. We found that our minds worked well together on this, the first analytical job we tackled jointly.

Up in the Sisson burn, the Shasta lilies came up in multitudes after a fire. Each stem would be four feet high, with many blooms. I used to bring a great load to Mabel when we were up there examining our plantations,. Some flowers had

black spotted throats, some red, some brown and some were unspotted.

Ed and I in the tedious train rides up and down canyon, got to talking about the market for the spectacular flowers, sorted so that the black spotted would be for funerals, the unspotted for christenings, and so on as appropriate. We got a pretty good promotional act out of it, and often some guy with rabbit ears would buy in and want to get in on the gravy which Ed and I rather casually mentioned in large and juicy gobs. Then we'd be coy and reluctant and tease the guy along, till we got to wherever we were going.

Actually, seeing how easy suckers were, we darn near got to believing ourselves. Anyway it was an amusing way to kill a tedious hour.

Orders came from T. D. Woodbury to scout out plantable brushfields in other parts of the forest, and in April, 1912, I cooked up a horseback trip with Tillie to Squaw Creek. The forest was due to get a big improvement allotment of several thousand dollars, and Tillie, as Deputy and an engineer, was to scout out with the rangers the projects on which this wealth would go. It was a wet spring, and how it can rain in that country. Every trip with Tom Lorenzen, the ranger - Potem Cr., Curl Ridge and Camp Welcome, Dick Smith's upper place, Reynold's Basin - we got soaked in the ubiquitous wet brush and came back to lazy Lou's little old shack, where there never was any dry wood. Lou's provisioning for trips was, to say the least, scanty. I picked out a planting area at Camp Welcome and another near the

Station, and filled a notebook with lists of species, largely brush, notes on reproduction, did some stump analyses on an early sale to Bully Hill (which came in handy a few years later), and started to work out a system of plant indicators as a means of judging planting sites.

After three weeks of being wet, we started back to Bisson. Still raining and streams were very high. First night we stopped at the Campbell ranch on the McCloud and fought bedbugs and fleas. Next A.M. we got Joe C. to ferry us across to the west bank, swimming our horses. The ranch is now deep under Shasta Lake. Then we took off upriver - in the rain. At Tom Neal Cr. there was just a ford and a boiling stream. Tillie put his mare in first, she was swept down, but her hind feet caught on a boulder just before going into the river. She lunged and got out after hanging there for some seconds. I took a deep breath, looked without joy at Tillie's pallor, and my mare repeated the performance. Neither of us felt like talking about it then, though Tillie made a good story out of it later after we got over being scared. Need you doubt that a bridge over Tom Neal was high on Tillie's priority list?

Some fellow down in Clear Creek had been writing the President and the Secretary of Agriculture about the terrible loss of timber in the forest caused by the Kennet Smelter, which had been shut down for some years. In due course word came down the line to find out about it, and Dick firmly designated Ed and me the ultimate consumers. It was that first of June hot spell when we took off one P.M., afoot of course, from

Trinity Mountain, with a blanket apiece and a skimpy outfit of grub, based on the optimistic expectation that we'd finish in two days. We had a pleasant theory that - as Ed put it - we'd "lay up during the heat of the day." Said heat in the long days starts early and lasts late, so we floundered and suffered through the brush for two days along the original compass shot and the forest boundary.

The second night there came darn near being a justifiable homicide. I'd cooked our last slice of ham and not much else, and Ed hastily took on the carving. Need you ask? I got the bone, and by that time all the good was in Ed. It was a sore temptation, but I got revenge. Our joint bed was a tiny shelf sloping to the little creek. I firmly manouvered Ed to the lower sector, where a sapling at his neck and another at his knees could be used to keep him from going overboard. Naturally I kept working him down, and I don't think he had a restful night. I was too hungry to sleep, so I could at least enjoy it in a mean way.

Next A.M. we decided to head our hungry selves for civilization, as represented by Dog Creek and Delta. The dead pines were definitely bug-killed. So we took off in a general northeasterly direction, and by early P.M. hit Dog Creek near a little old subsistence farm. We decoyed a badly needed meal out of the subsister, and listened to an earnest lecture about what a shame it was for young fellows to hit the road, we ought to get a regular job, etc. We sure looked the part, so we

agreed with him and promised reform. Our report firmly put that troublesome reporting fellow in his place.

It was on this trip that I decided to work on a very annoying habit of Ed's. He'd always run out of pipe tobacco and matches about the time we got a long day's journey from the nearest country store, and then demand, beg or cajole part of my supply. This time, before we left civilization, I told him firmly "no more free tobacco and matches."

Ed, of course, figured his powers of persuasion were adequate and first night out he reamed his pipe to get in a big load of my Prince Albert. I just stood pat and let him beg, and took care to blow smoke in his face so he'd suffer good. Then I figured he'd suffer more if I gave him just enough to keep the habit alive, but not satisfy it. So I rationed out a pipeful next morning and Ed enjoyed it with a smug look, figuring he'd won again. Then I put him off till next A.M. and he huffed and puffed and went through his bag of tricks.

I can report that the treatment was happily successful. Next trip he had two ounce tins of Edgeworth in every corner of his ditty bag.

I might as well tell now how Tillie, Bob McInroy and I housebroke him on bumming in the office. Dick, also a victim, was a silent partner. Each of us mixed up a dose of fine-chopped rubber bands (Government property) in a spare tin with some tobacco and put it rather ostentatiously in the top drawer of our desk. Ed wasn't ethical about bumming. We casually went to Dick's office for a conference. Shortly Ed, with a

pleased smirk, came drifting in to join the talk, puffing away. And shortly thereafter, that rank and disgusting stench of burning rubber wafted around. Dick played up and hollered, "My God, there's a fire." So we all played up to that, watching Ed. Pretty soon it dawned on him that he'd been had, and of course all of us joined in a big horse laugh - except Ed. He put on his mad act, compounded with the act, "How could my dear friends do such a low thing to me?"

That, too, worked, and it would be nice to believe Ed was a better man for it.

Come July, 1912, there had to be a decision on timber reconnaissance. No more summer crews. Big promotional schemes for railroads down the Trinity and Klamath Rivers had been cooking and had led to the summer parties, getting ready for expected big sales. Then the schemes blew, Greeley and Woodbury were disillusioned and decided no more reconnaissance till cash money was in sight. Then, too, out in the northeast in the McCloud and Weed Lumber Company empires there were many townships with just "shotgun" patches of government where a crew was too big to do the work. So Dick, Tillie, Ed and I decided to continue winter reconnaissance where government land made up at least half, and Ed and I would cover the shotgun areas. It was an example of the informal staff system that Dick used, and what was wrong about it? So Ed and I cooked up a job for later.

One summer P.M. Ed and I were peacefully riding the rattler - Weed-Gray - when we suddenly saw a big cloud of smoke boil up back of a ridge toward Mt. Shasta. So we hastily gave

the conductor a wire to be sent the Sisson office from Bray (there weren't any guards in the country); got him to stop and let us off at Shasta Spur, an unoccupied weed logging camp, figuring we'd find a caretaker and some tools and grub. Nothing, and there we were with darkness coming on. So we kegged up in an old barn to wait for the early morning logger which, we figured, would bring a guard. Meanwhile the smoke just vanished and we began to have doubts and qualms.

Bright and early next A.M. the logger stopped and Sisson guard Bill Pepper and several braves hopped off, full of vim. Ed and I hastily pointed out the direction, assured Bill we had to go now, and hopped the caboose for a needed meal at Bray.

In due course our faces were red. The smoke turned out to be dust from one of the periodic slides of lava ash up Inconstance Creek (well-named). Bill was pretty pecky after a long and fruitless search. Ed and I got plenty of heckling and sneers. Such boots never stay a decent secret.

Come late July, with Tillie circulating among various trail and telephone projects, Dick took off on one of his out-of-touch pack trips, telling me "She's yours. I'll be back in a couple weeks." Shortly the new clerk, Earl Lackey, came in and informed the Acting Supervisor (me) that the improvement money was all spent and we were in debt besides and spending at the rate of over a hundred bucks a day. My superiors were not available, so I got word to each ranger - by messenger - to close her down pronto. A couple were disposed

to say "And who the hell are you?" So I sent a letter telling them "O.K. go ahead, but as of from now it's on your personally." One guy still didn't believe it, and it was. Then, of course, I reported to the District Office and Dick got back just in time to deal with a dirty letter commenting on such business management. The deficit was made up by forced loans from solvent forests. It always seemed that crises popped up when I was Acting, and that they bore no remote relation to anything I'd learned in forest school. Basic doctrine, of course, was to protect Uncle at all times, and so decisions actually weren't too difficult to make. Just another way you learned the practicalities of life.

Another July ^{chore} ~~went~~ in which I somehow got involved was the Annual Statistical Report, with schedules covering everything under the sun. By the time you pried the dope out of all the rangers, checked the files and got the arithmetic straight, the D.O. would be hounding you for being late and not being polite about it. Anyhow it was good experience.

Then in August Ed and I took off to pick up the 49 forties of government in the entire Van Bremer Well township, and my dad was along on a visit, and he and Ranger Bernard Gerard went on up to Medicine Lake, where Papa, a damn good fisherman, caught some noble trout. The well was a foul and stinking mess. Ed and I skimmed off the dead chipmunks and birds, and then boiled the more or less liquid residue. The heavy population of God's little creatures would in due course float

to the top, we'd skim the corpses off, and pour the presumptively antiseptic remainder - hot - into our canteens. It wasn't tasty but it had to do. The only ill effect was what Ed elegantly called "cramps".

Here I acquired an Airedale dog. The poor fellow came tottering into camp, weak and emaciated and full of porcupine quills which, except for the barbed tips, were rotting out. My only tools were a jackknife and a straight razor, and with these I started in to get him so he could eat and drink. He whined and suffered - it was a rough job - but took it like a hero. Then we got him fed up and he attached himself firmly to us - the only friends he had in the world.

Ed and I ran many miles of line and religiously covered the brush patches - i.e., govt. - that the timber locators had carefully passed up. In later years we did more of the same.

Doc Meineke, able and mature forest pathologist, was selling his plan of "sanitation marking", and in the fall of 1912 he came up to demonstrate it on the new M. A. Burns sale in Castle Creek. Dick, a couple of rangers and I worked with Doc on it, my part being to decide whether trees would be cut or left under the old system, and keep records. Doc trained us all very thoroughly in the new look. He was that way.

In the fall of 1912 His Majesty's Government sent a formal request, through diplomatic channels, for seed of knobcone, foxtail and whitebark pines and incense cedar, to be used by the Imperial Forest Service for experiments in British India. Someone in the District Office checked up in Sudworth and so

I got that job. Mabel's brother, Carl, was up on a visit, so I got a horse and bed for him, grabbed Sisson guard Bill Pepper to pack and tend camp, and we proceeded to Mt. Eddy for the foxtail and whitebark. Carl and Bill went fishing successfully while I picked and sacked cones and got thoroughly gummed up with pitch. Then out near Rainbow I climbed a big cone-laden cedar and cut branches as I came down - Carl meanwhile fishing the North Fork. Then I chopped down some knobcones up at McCloud Summit. I spread all the loot out on big seed-sheets in my back yard, and the sun did the work, except for the knobcone which had to be oven dried to get the cones open. In due course a properly-couched letter of appreciation came back through channels. Carl still remembers the fishing and especially Bill's system of making coffee - one big pawful per cup, boil hell out of it, don't throw away the grounds till the pot is filled with them. Bill was a hardy man.

Well, the fall rains came and we started to put in the experimental plantings, selected by us and approved by Woodbury. We'd gotten possession of ranger Hub Simpson - he could pack and Ed and I didn't. First we did one at Mumbo Basin - of all places. Then we did a hard two day pack to Camp Welcome, and Lou Lorenzen came up to take our animals to where there was some feed. And it came on to rain steadily and relentlessly. To get a fire going, someone had to shield it with his body, eating smoke. The days went by - in the few clear hours we'd dash out and plant. Our grub ran practically out. At the

moment it was legal for one officer to buy grub and sell meals to another as well as to himself, and Ed and I, figuring we'd make a profit, had bought on the basis of a short job. So Simmie and I took to hunting deer, and got three - two were his. Then we darn near lived on venison, and kept charging our paying guest for his own meat. It was O.K. except we'd run out of salt. Simmie and Ed got fed up and hiked to the Country Club for a few square meals and to dry out, while I held the fort wetly and alone. In about three weeks, Lou came with the horses, and everybody left in a hurry. Ed and I got some kind of a pack on our tall gangling pack horse - it stayed put - and we got down to the Club. Next day it just rained. Try riding from the Club to Sisson that way. We got in late at night, put our animals in Al Koletzke's livery stable, and went over to the Row for a badly needed quick one - or two. It sure felt good to be dry again and sleep in a dry bed. But noone got even a sniffle. Also, Ed and I made a modest 200% profit on meals. Also, I brought home quite a welcome lot of meat.

Then Simmie and I did a sample planting at Bragdon Gulch, ate his deadly soda biscuits and sauerkraut, and Lou Lorenzen and I put in one near his station.

And finally, with a deep breath, I dove into the Silvical Report, and got that massive job done during December. I remember that Woodbury and his experts eventually allowed it was pretty good, but with a few pages of ifs, ands and buts, just so I wouldn't get too pleased with myself, I suppose.

Anyway it was off my neck. Also it was pretty nice to be home for a change. Mabel and I were near enough solvent to put on a Christmas turkey dinner for folks, a big moment in our lives.

January, 1913, and another winter reconnaissance party starting at the Evans Ranch, a few miles out of Weed. Dick was, I think, trying to get rid of one Malone, ranger at Cayton, who had been an itinerant evangelist and was currently ranching on the side. He was the picture of the traditional Puritan, and made a great show of flapping open his big Bible to read a verse and purify himself on the numerous occasions when there was rough language around the table or at the solo game. So I had Malone and did my best to make it tough on him. How he was disliked by the gang!

In due course we moved to Shasta Spur, covered the country to timberline on Shasta and to the top of Whaleback, and found a whole section - Sec. 28, T43N R3W - which had been cut in trespass by Weed. So we sealed that up and went on to the Grensda Ranch on Butte Cr. Doc Meinecke, among other things an expert skier, came out to visit with his striker, Jack Boyee, and darn near died of exertion. The soft, heavy Calif. snow was different; he didn't like it. That was the winter we didn't lose a day on account of storm, and we were all glad to wind her up in mid-March and get back to town. I had Ed, Simmie, Fred Williams and Bob McInroy, and Tillie came out for a while.

From Grenada Bob and I horsed each other into riding our skies straight down the bare and steep east face of Haight Mt. We trimmed up red fir saplings to straddle as brakes, but in 50 feet we were out of control and our eyes were watering. By dumb luck and hanging on we got down without disaster, but we never tried it again. At camp, of course, we preened ourselves, the rest called us liars, and we finally got them out in the meadow to take a gander at the noble furrows we'd plowed in our wild ride. Much more nerve than judgement!

Ed later made a reputation for himself by negotiating a cut rate settlement on the big Morrison trespass with S. O. Johnson. Dick always had a proper New England eye for a bargain, and that year there was a lot of Scott Valley ham and bacon in the market, several cents a pound cheaper than the standard brands. So he stocked with it. After sledding it out we found it had come from hogs which had gorged and grown fat on spent salmon. Cooking was a malodorous ordeal - the rest of us just went out in the snow. Eating it wasn't an epicurean delight, either, but that was it. We used to visualize and dream over situations with Dick and nothing else but the foul stuff on a desert isle. You can imagine Ed's joy over it all.

Only once in our winter moves by sled did we have any trouble. That time we made a 24-hour stop on Edson Creek to pick up a piece of country that had been worked around for several winters. We got it and then, as we settled down for night in the open, it came on to snow, one of the heavy, wet kind. Each of us tried to solve his own problem - we had no

tents. It was a darn long and uncomfortable night.

Next A.M. everything was buried under a foot and a half of new snow. Getting breakfast and warming fires started was a project. Finding dishes and grub, cooking and eating a half done breakfast ditto. Same for packing up soggy bedding and frozen lash ropes. Same for dragging our king-sized loads the six or eight miles to the nursery, with the new snow making each step an achievement.

Finally we made it, dried out and warmed up, drank our last whiskey, had a respectable meal and quit being mad at each other.

After that we made no more outdoor camps.

Ed and I worked together a lot during 1913 - spring planting, examinations of the far-flung planting areas, periodic marking in the LaMoine and Burns sales, doing another hunk of "shotgun" ownership, and such. Getting around as we did we kept running into defects in the protection system - look-outs going for water in midday or loafing at the foot of trees or towers; guards with their animals running loose in the pasture; telephone lines dragging; trails choked with brush; etc., etc. So we began to stew and argue about it all, fumbling toward the kinds of organization and discipline that we had a good deal to do with later. Of course on the Shasta, you couldn't ignore fire, but I think primarily we both had inquiring minds and a wide range of interest. Noone told us to do such things. We used to have ^{fun} ~~fun~~ arguing with Dick and Tillie. We saw more country than they.

In my case attention to fire became mandatory in 1913 when DuBois assigned me to one of the 22 topics for the forthcoming historic supervisors' meeting on fire control. I think I had the simple subject of "rates of spread" and I'm sure my "contribution" wasn't much, except to demonstrate we knew nothing about it. But it broadened our interest, and somewhere along the line we worked out a first attempt at a classification of fire control types. Anyway, we were well into our ruling interest in fire control and knowing we worked well together pretty early.

Dick gave us great freedom to originate and plan our own jobs, and we were in on the informal but effective "staff" huddles, which I think was a good system.

Doc M. was making cull studies on timber sales, and he sent up Jack Boyce and John Berry to do one on Castle Creek. I helped lay out sample plots, mark them, measure and tag the cut trees, and then the logs and trees were followed by the lads through the scaling process and, to some extent, through the mill. Jack Boyce made detailed notes on each tree, and it all led to better means of identifying cull in standing trees. It was an interesting and instructive assignment for me.

It was the socially correct thing for forest officers to climb Mt. Shasta and leave their names in the book on top, and over July 4, 1913, Woodbury, Jack Boyce and Ed Kotok tackled it. I had a date with another guy for later and didn't go. The lads came back with a heart-rending tale of their hardships and the sad news they hadn't found the iron box and registry book. So Wood and Jack propositioned me to remedy the defect, for which they promised a large evening, prepaid,

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Foreword

As a personal story, this is probably quite unimportant, except to me. As a sketch of a bygone time and mode of life in the Forest Service, as illustrated by one man's experiences, I hope it has some general interest to those who would like to know what it was all like in early days.

It was, I think, a time of constant challenge and of constant effort to respond. Learning as you went, extemporizing answers to problems as you read them, finding out the hard way how to deal and work with colleagues and outside people, learning or inventing tricks of unfamiliar trades, trying to develop resourcefulness and savvy, and of course will to put out, were the sorts of things that dominated the lives of young foresters. Initially, book learning and technical standards were relatively unimportant.

From this rough and tumble general judgement world there had to be an evolution toward replacing guesswork and ill-informed judgement by fact; and circumstances and bosses' whims put me in the middle of this process called research, again with wide opportunity to experiment, invent and improvise as I went along. That kind of life was interesting and sometimes baffling, but that is how it was, and that is how the evolution toward a more factually accurate, highly organized and rule bound world got underway.

This, then, is the story of a young guy who didn't get in on the initial explosive advancement of that small and

select band who went from humble field assistant to august regional forester in fewer years than it now takes to make it from assistant to district ranger.

Eventually the wheels kept turning and was put chforked, all put old into that Lefty Enunciated, being District Forester, which as a Green Junior had seemed so far off and unattainable. You'll hear about that, too.

next time I was in San Francisco. Since I was due in November for the fire conference, it looked like a good deal and I promised.

My trip up was mostly a six hour walk uphill, though the wind was rough. I found the box, forged the names, and had a wild slide down over crusted snow from Thumb Rock.

The lads made good in San Francisco - drinks, dinner, drinks, a Gaiety Show, drinks between numbers, a night club and drinks. Oh, la, la!

Next year I climbed Shasta again - 4 hours from Horse Camp to top, a record that stood till a Weed high school youngster beat hell out of it, and ended up with a wrecked heart.

My sister, Ruth, came up to visit, Ed clustered round, and they cooked up an engagement which was put into effect after her graduation from Stanford next year.

November was a time of tragedy for Mabel and me, when our first child was stillborn after an extremely difficult and hazardous time for Mabel. I won't forget the great kindness of the Hammatts and others.

The winter job in January, 1914, involved first of all a long tough uphill sledding in from Bigelow on the McCloud R.R. via Nursery, Peter Camp to the Hart Cabin on upper Butte Cr. over a steep and dangerous pass where we had to unload and pack cases and cans on our backs. The country was far steeper than any we'd tackled, but we covered it. Bob McInroy and I got into a ^mjax when we stretched out an already long and exhausting day for a distant area so we wouldn't have to go

back, tried a shortcut to camp as night was falling, and got onto a precipitous icy slope where we had to cut steps to get down. We made it in our third wind and got to camp just about out. The others were, of course, alarmed, but nothing they could do.

Again we were the victims of Dick's passion for economy. This time as a monstrous hind leg of "Australian beef", which must have come from some great and super^Uannated bull, too gaunt and feeble to defend himself. After its long slow journeys and delays, with alternate freezing and thawing, it was, when we finally got it sledged to camp, as black as bear meat, and so hopelessly tough that the cook used our bucking saw and double-bitted ax to carve it up. No matter how long it was boiled, it defied mastication. We gave it up and resigned ourselves to a diet minus fresh meat. It was hung on the north side of the cabin and all the jays, chickadees and nut^hatches in the country worked away at it from dawn to dark to the aggregate effect that, in a few weeks, they'd disposed of maybe a cupful. It must have made a noble stench, come hot weather. Or maybe the coyotes and vermint got it. We didn't care.

A big storm at Har^t's was recorded by Tillie on the walls. Over 30 years later when I retired, one of my going away presents was from my friend, Ray Huber - fine photos of the then dilapidated cabin and of the inscription.

The rest of the winter was not noteworthy - just the usual slogging four strips per section and mapping the alternate S.F. sections, breakfast by lamplight, huge early supper and to bed.

During 1913 and early 1914 there was the big land classification job to select and list once and for all the "agricultural land" on govt. Two alleged experts covered the big areas drawn in by Dick with a large eye on the map. They had the most unimaginable optimism and, as their ^{re}ports came in, it was obvious that no idea of timber values had entered their myopic minds. So the forest staff decided that Ed and I should cover all their proposed listings, cruise and otherwise report on timber values.

We started up in the Red Rock Valley country, moving in on the Hummel Ranch. The hens were laying and we had eggs three times a day - fried for breakfast, half hard boiled for lunch, fried for supper. At lunch Ed would curse with his usual fluency, rear back and explode his eggs against a yellow pine, and make do with the sandwich. So there was a stimulus for long hard days.

Then with fall coming on, we headed for Cayton Valley and vicinity, riding the McCloud train to Bartle and then hoofing it. We moved in on John Bidwell, his wife, three daughters and the lady school teacher. There occurred the pants episode, out of which Ed and I concocted an uproarious tale, which we've told ever since with or without encouragement. Here it is:

Pants

Back in the dark ages before flivvers and automobiles put the horse out of business in the California mountains, Congress got a soft-hearted spell, decided that National Forests were withholding a lot of fine agricultural land, and passed a law

on the subject. So all of us fellows in the Service soon got imposing documents telling us to add another month or so on the field work and find out about it.

Ed and I, being handy and not having any alibi that worked, the boss says: "You boys go down there to the Shoon-Horse country, and trail after those agriculture experts. The chief thing is to cruise the timber on this here agricultural land. Now I know that country, and there won't be but a few little pieces of land, so you can go light and stay with old man Bidwell."

Well, we conferred, as they say, and decided, since we had to hike it, that about one tooth brush per would be the right personal equipment. So we beat it down there next day - 25 miles of up and down, figuring a few days nice pleasant work.

Trouble was, these experts took themselves too darn seriously. They had it doped out that perfect hordes of land-hungry people were waiting at the forest boundary just panting to grab any land that wasn't standing straight on edge. So we had a sweet time cruising timber all over the map - phoning in to the boss about what a good judge of land he was.

Old man Bidwell took us in, introduced us to his three beautiful daughters and the school teacher, so we figured that the terrible hardships of a Forest officer's life maybe weren't so bad. Everything nice and comfy the first few days. I played the family organ in the evening and Ed sang - or something of the sort.

But then we began to slip. You see, there was a lot of manzanita brush everywhere - stiff limbs that grabbed at one's clothes. We went right ahead, breaking through the thickets,

figuring our duds would stand the strain. I was running compass, so my khakis were the first to begin melting away. The darn cloth just disappeared over my knees and up and down about a foot each way. Wasn't long till there was a sort of lacy and diaphonous effect - very fetching, but embarrassing. Coming in nights, I'd get Ed to run interference, and I'd slide in quiet and unobtrusive behind him, and get my legs under the table pronto.

Then in a day or so, Ed's blue bib overalls got lonesome being so respectable, and Ed refused to be in front of the parade any longer. So we took counsel in the privacy of our boudoir. No chance to send out for replacements - late fall and the stage had quit. I tried the boss on the subject of coming in to headquarters, explaining that it really was a national crisis, but nothing doing. We were sure in need of those qualities of self-reliance and ingenuity the examination papers say all forest officers must possess to a high degree.

Finally we decided there was only one possible course. So next morning we started to work, with the girls giggling surreptitiously, and the old man not a darn bit secret about his mirth. Our strategy was to save what little we had left. Out about a half mile, we stop under a pine tree, and swap our britches around front side behind and vice versa. These pants of ours were old and tried friends, you understand; had kind of molded themselves to our figures. I'm rather long and lean and walk with my knees bent, so the chief effect after the swap was that I was walking back to meet myself. Ed's figure even

then inclined to the exuberant, so there was a strange protuberance fore and aft that were right amusing. Of course, buttoning our pants up behind was a new and novel experience and not so easy as you might think. In fact, we had to help each other. Ed's bib overalls, with the bib between his shoulder blades, was a noble sight.

Other difficulties arose. I always carried the compass in my right side pocket, the barometer in the left, and the notebook in my right hip pocket. After the shift I managed the instruments with some contortion - but the notebook remained a homeless child. If I put it in the erstwhile hip pocket, now flapping out in front, my high knee action knocked it out. Finally I had to compromise on sticking it inside my shirt.

Ed was really in a worse fix. He had a watch, perfectly cared for under normal conditions, in the pocket of his bib. To leave it there after the shift meant he just about had to undress every time we wanted to find out whether it was time to eat. So, having an empty tobacco can, which he always carried in hopes of meeting someone unacquainted with his borrowing propensities, he cached the watch in it, the can in his hip pocket.

Well, after a good deal of cooperation and spasms of unrestrained mirth, we got each other hooked up the back and all the personal effects stowed away. I know I've always prayed that no one ever checks our work on that first day. Ed, being behind, was so intrigued by my appearance, about which he coined some telling but uncouth bon mots, that he remembered

to estimate the trees only now and then. Being sensitive, I was actually fussed, and besides I got quite a kick out of Ed's baloon front. So about the time I'd sighted on a sugar pine up ahead, I'd feel impelled to turn around and get an eyeful, and then decide it was the big fir I was headed for after all. Of course, too, you understand all the repartee didn't come from Ed. At any rate, the cruise shows about one tree every quarter of a mile; the map, creeks running right plump over ridges.

At night, naturally, we shifted back under our pet pine tree, and marched home with as much dignity as possible, which wasn't such a lot at that. Seemed as if the whole family was eager to lay eyes on us. Sort of an air of suppressed excitement, or what we felt about it, a bunch of buzzards hovering around for an expected happy ending. Old man Bidwell looked kind of disappointed to see us in such good order, and remarked that we must have struck a nice open section. "Oh, yes", we replied together, "there wasn't any brush at all", which was far from true.

Seemed like the more those experts flitted round, the more optimistic they got. I reckon if any poor benighted homesteader ever tried to clear the brush we waded through, his land would have cost more than an orange ranch in Florida. So in a few more days, the boss resolutely refusing to let us call it a job, the other side of the pants began to get worn thin. We were threatened with being reduced to about as much britches as some of those sunny California bathing suits. Well, it's true the two seams in each leg were still pretty strong, but they

were, I must say, totally inadequate to fulfill the normal functions of pants.

"Ed", I says, "you and I are sure over a barrel. If we go fast and try to finish the job quick, we aren't even going to have a bluff at pants. They'll be torn plumb off. If we go slow to save the shattered remnants, the job is going to last till Christmas." So, remembering the three beautiful daughters, we decided to concentrate on conservation, and hope that the boss would open up his heart. So we flipped a nickel to see which of us would negotiate for some of the old man's cast-offs. We weren't proud, and would have taken anything with shrieks of joy. I lost.

So after supper, when I figured he'd be in a mellow and generous mood, I cleared my throat and remarked casually, "Oh, by the way, we'd like to borrow some of your old trousers. You see, ours are getting just a little unstable for tackling the brush." The old man sort of grinned to himself.

"Well, now, boys", says he with a wicked twinkle in his eye, "I'm mighty sorry but the fact is, these here pants are the only ones I have", which was a plumb and outright lie, as we knew and as he knew we knew. But, being guests, we couldn't pursue the subject further.

Once the subject of pants was opened, he displayed an almost morbid curiosity. "Seems atrange", he says, "how those pants wear out behind. Never seen pants act that way before." We finally calmed him without making any damaging admissions, and went to bed. Ed spoke of burglarizing the old man's room, but finally lost his nerve. We were sure up against it.

Seems as if the old man should have treated us kinder, too, because of the undoubted good effect we had on the family. Before it used to be a terrible job to get the girls up in time for breakfast. But after we'd been there a few days, they positively must have sat up all night, so as to be on hand bright and early for our parade down the hall to the dining room.

Desperate needs require desperate remedies, or something of the sort. So we decided one more day and we were through, even if we did become personnel cases in the district office. Our morale was plumb ruined by the secret but obvious enjoyment of the family.

So that day we hit the ball with real pep. We figured the worst was over. We had become more or less reconciled to each other's appearance - in fact, we looked queer when our pants were on the right way. Along about three I heard a horse coming up behind us. Thought I, "Nobody in this country I care to see - or to have see me". So in behind a big pine I went. Ed was caught in the open, and pretty soon I heard his melodious voice, "Oh, yes, it is nice for this time of the year. No, we're not prospecting. Cruising timber for the government." Then this bird on horseback: "He? Oh, there's two of ye, huh?" Nothing for it then but to sally nonchalantly out. Ed, I saw in a glance, had used the old bean. He was standing coyly in the middle of a manzanita clump which concealed the lamentable condition of the south half of his attire. Sort of a Venus arising from the foam effect. So this old cowman hadn't tumbled.

Soon as I got out in the open, I began to chatter vivaciously, hoping to distract his attention. But I saw a surprised and startled look as I sidled for the nearest cover.

"Haw!" he exploded, "haw, haw, haw! Cruising timber. Haw, haw, haw!" Is that how you got knock-kneed backwards, young feller? Haw, haw, haw!" I looked appealingly at Ed, he having gotten me into the mess. Nothing to say, as far as I could tell on the spur of the moment. But Ed, the son of a gun, laughed louder than that pirate on horseback, just as if it were a good joke on me. I had hopes for a minute that friend cowman would fall off his horse, his mirth was so hearty and unrestrained, but no such luck. Finally he controlled himself. "Well, boys, I gotta get after them old cows. I certainly have enjoyed meeting you this way. Haw, haw, haw!" Then he starts off, and I heard Ed's sigh of relief from thirty feet away. But suddenly he wheels back, bellows at us, "Say, either of you fellows got the time?"

Well, believe me, I spoke up right quick, seeing a chance for revenge. "Oh, yes, indeed, he has a watch", pointing at Ed so there'd be no mistake. Ed looked flustered, for him. First he rushes a pass at his shirt front where his overall bib ought to be. Checks that move en route - swings with a long sweeping motion for the middle of his back. Sort of like a Mex getting ready to fling a knife. Then, instead of being calm and figuring out where the watch was, he begins patting himself all over, in a desperate hope kind of a way. Finally, when even I was getting embarrassed for the poor boy, a look

of almost human intelligence crosses his face. He hitches up his britches, and back goes his right hand for the old hip pocket. Just like reaching for a gun, and the cowman seemed to figure it that way, for he got that ready for any eventuality, particularly unpleasant, kind of look. But curiosity kept him.

Ed finally fishes out this red tobacco can, shakes it up by his ear, and then solemnly rattles out his gold watch, chain and charm into his hat.

"Well", he says, "it's just fourteen minutes past" - but our friend was off again. "Haw, haw, haw! So you keep your time in a safe. Haw!"

Ed, meanwhile, had been beguiled from his retreat and the old boy really got a chance to look him over. Seems that he was used to living alone and had got the deplorable habit of talking to himself. His monologue, which I positively will not repeat, was altogether too searching and accurate for our comfort. There was no respect for our finer sensibilities in it. Altogether too anatomical, if you understand me.

Well, at last he left, remarking casually that he had to get those condemned cows and see old man Bidwell yet. Ed and I didn't even hesitate. No argument, perfect understanding, two hearts that beat as one and all that sort of thing. We just started in the general direction of headquarters, cross country. Reached it about midnight in the light of the silvery moon. Even then, we sneaked in the back way, with an inferiority complex and passé britches.

So that's the truth. The report that was circulated about two forest rangers - one tall and skinny, blonde, one short, or-plump, brunette - having gone crazy was absolutely without foundation. A base calumny, as the politicians say.

At Bidwell's, Malone's (yes, the same guy) at Lud Loftoⁿ's and at Bird Flat, on all of which and whom we moved in, our diet was largely pork. Hog killing time was on. Ed ardently didn't like it - fried, boiled with the bristles on and served cold for lunch and hot for supper. He got into a very low frame of mind and nourished the notion that it was all a conspiracy. As for me, I valued food, especially if it was meat.

Eventually we worked our way over Chalk Mt. and into the Big Bend country. Ray Powers, the ranger, was combining ranching and his job - pretty strong on the first - and his mouth was watering for an adjacent piece he'd talked the experts into. Ed and I took particular care to record timber values on this, and eventually had the pleasure of seeing it adversed, whereupon Ray got mad and quit. Our reports settled a good many others as well. We also got some good dope on how Malone was handling his ranch and official job, and it helped in getting him out. These divided loyalties and double jobs never did work. Ed and I were agin them.

On the way out we ran into the episode of the fat lady and the red setter bitch, another yarn we always loved to tell.

The Fat Lady and the Redheaded Setter Bitch.

Ed and I finally dragged into the Wheeler place on the McCloud late that chill November evening. We were wore out

and famished. We'd started at dawn from Big Bend over on the Pit to hike home to McCloud and Sisson after our long stint of cruising and mapping. Then at an unsigned and obscure fork of the trail I'd zigged instead of zagging, for which Ed still curses me correctly. After climbing some more, Grizzly Peak lookout was staring us in the face, and recognizing we were sort of lost, we sat down to eat our lunch and confer - also to ditch our back packs of sword ferns.

The forest map showed a trail down Star City Creek to the river, and we made a monumental blunder and believed it. Nice down hill through open timber lay below us, and we figured nothing to it and took off. After a while, and a couple of thousand feet lower, we turned an angle into country we couldn't see before and the timber ended and brush began. Chinquapin and white thorn on the north slope, manzanita and scrub oak on the south; all of it tall, thick and tough.

So we started hunting seriously for this trail. I'd try one side of the creek and find a vague deer trail and holler to Ed. By the time he'd flounder over the trail would peter out. Then I'd wallow over to the other side and the performance would be repeated. In between, I'd try wading the creek until I got drove out by windfalls or rocks. Ed kept being mistrustful, thinking I was on easy going and holding out on him, and as a matter of fact I was watching him like a hawk.

So the afternoon wore away. Those few miles on the map sure stretched out. Finally, like I say, we made it. There was a welcome looking light in the caretaker's cottage, and over we went. After our long time away, we weren't exactly

prepossessing in appearance. Especially Ed, I felt, with his red shirt, bib overalls, floppy old hat, two weeks' growth of heavy black beard, and generally disreputable look.

So I says, "Ed, we sure need some food, so I'll go in here and negotiate and you keep out of sight." I knocked nice on the door and this woman opened it. Just as I was starting my pitch, Ed, smelling food, came tramping up the steps, looking in the moonlight like some horrible and menacing monster. The lady whose man was evidently away, took a look and screamed, "Go away, go way." Then she slammed and locked the door, still screeching, and we could hear her dragging up furniture to barricade it against the expected invasion. Of course I made a few appropriate remarks to Ed, while he stood on the porch and coaxed, "We've got money, money". No soap.

Well, we hit better luck at the big barn. The Italian cowherd was finishing his milking and we talked him out of a can of warm milk, a big hunk of hard Italian cheese and a big slab of hard Italian bread. So up the road to McCloud we started in the moonlight, chewing away and swapping the can of milk back and forth. We were legweary, but the food sure hit the spot.

After a bit, with the food taken care of, we came to a sign, "McCloud - nine miles." It was pretty clear we wouldn't be welcome back at the place, so nothing to do but plod ahead. Ed would mutter his thoughts about my getting us lost and into this, and I wouldn't have any very good comeback I could think of.

In a mile or so we suddenly heard to the rear the unmistakable noise of a Ford, rising and falling. Then the feeble, flickering lights came in view. Ed and I didn't confer or^{Just} argue. We ~~first~~ stopped in the middle of the little old road and started waving our arms and trying to look pathetic. So the car shuddered to a stop and again without premeditation, Ed hopped on one running board and I on the other. Then we did a duet on the general theme of we'd like a ride to town on account of we were wore out. This character who was driving, a long, shambling Okie type, says "Well, friends, I'm overloaded now", and the car, come to look at it, was. But we pleaded and stuck to our running boards and finally he says, "Well, one of you will have to hold my wife on his lap up front, and the other will have to get in back with the dog and baggage". So I made my second big mistake of the day and piped up real quick, " Oh, I'll be glad to get up front," thus beating Ed to it.

Then this female woman disgorged out into the moonlight and I saw what I'd done. She sure was a large, well-nourished and well-grown girl, with evident and ample curves in the usual places and a general look of a massive and exuberant structure. Of course this was just a fleeting glance as I slid in underneath. She didn't hesitate but just dropped down and sort of overflowed and enveloped my skinny lap. It became evident at once that the horsehair padding in the front seat had given up the struggle and the coiled steel springs had nothing between them and me but the leatherette cover. "Oh, gosh," I

thought, but I was for it.

It developed, too, that this girl had a coy, kittenish and friendly disposition. We started out with the usual grinding and stuttering in low gear and she sort of turned around. "Tee, hee, are you quite comfortable?" Then she'd give a sort of twitch or wiggle or roll of her more than ample rear end, and about that time the Ford would hit one of the numerous bumps and while she came down the springs would come up and prong me good in my rear end. When I got my breath I'd assure her I just loved it and she'd giggle and squirm again.

So for a mile or so I was so concentrated on my own private problems that I didn't pay any attention to Ed, though I was vaguely aware there were some female adjustment problems there too. This red setter bitch, unlike my female, wasn't friendly. She must have been bitter and disillusioned about something, and besides she had fleas.

Ed crawls in and disturbs her and then says cooingly, "Nice doggie" and tries to get his share of the space. Susie just snarled and growled and Ed desisted. Then her fleas, being disturbed, started to work and Susie snarled again and began scratching, a sort of complicated affair in the cramped space.

Pretty soon Ed started to scratch and sort of mutter and snarl to himself. That's how it went. Once in a while there'd be a lull and then Ed or the bitch would snarl and take off again. It got complicated when Ed's arm and the bitch's hind leg got to interfering. Then they'd both snarl and growl. It sort of helped in taking my mind off my own miseries. Of course my women got curious about the back seat ruckus and she'd twist

and turn to see what was cooking, and I'd pay for her fun.

Anyway, finally I just got paralyzed and sort of numb and it wasn't so bad. This Okie character just kept pushing the Ford along, saying nothing and the rest of us finally quieted down. At McCloud, the guy says he thinks he can make it over the hill, and Ed and I figured home at any price and stuck.

Finally, toward midnight, he dumps us off on the outskirts of Sisson. My legs were damn near froze in a permanent bend, but I finally got movement restored. As we plodded for the nearest gin mill, Ed kept trying to scratch between his shoulder blades. The bar whiskey sure hit the spot.

When we got home, our wives were pretty pecky. They'd prepared a fine roast pork dinner and then just sat and muttered.

We got in a big argument about who'd had the worst of it, each stoutly upholding his own miseries. We never did settle it. Then there was a distorted and garbled story going around about two dangerous characters who'd tried to rape this caretaker female. On that one we kept pretty quiet, but we sure were hurt. All we wanted was some nourishing food.

So that's one of the lessons of my youth, "Look before you leap". I learned it the hard way, even if I didn't always follow it.

Several of my sourdough friends in the southeast part of the forest regularly got a bear in late fall, corned the meat for the winter's supply, tried out the fat and dried the gall - about the only marketable item, since it was highly prized by the Chinese doctors. One of them, Dr. Wong, was in Sisson, and I'd take the item up. Then a formal trading routine, after I'd spread the word.

First, the lowest ranked of the four Chinese in our village, a cook, would plod upstairs to the office. "You catchem beargall?" I'd display, he'd sniff and pinch, and then, "How much?" "Five dollars." "Oh, too much - two dollah hab." And I put the gall back in my desk.

The second, another cook, would repeat next day, but get up to \$3.50. The third, the laundryman, after another day, would go to \$4.

Finally Dr. Wong, in ceremonial silk blouse and trousers and carrying his umbrella, would come, very polite and very careful in his inspection. From somewhere he'd produce a five dollar goldpiece without argument, bow deeply and retire with much dignity. We became good friends, and he'd see to it that small gifts of lichi nuts and sugared ginger came to us - the only tangible profit I made out of it.

Eventually I'd get the cash to my client - usually by hand. R.F.D. was pretty vague.

The experts had listed the McCloud flats as excellent potato ground, and Ed and I didn't go for that. The answer was simple. Maximum and minimum temperature records had been kept April - November at Pilgrim Cr. Nursery, and we were able

to show that every "summer" month had had killing frosts. So the flats are still not farm land.

During this same time the defensive boundary examination was on, and Barrett down in the D.O. came up with a drive to eliminate Squaw Cr., because it was the scene of incendiary fires to burn the brush caused by earlier range burning fires set by one Dick Smith. Thus it was a trouble, and the forest had been reduced to bits and pieces. That one I challenged by digging out the stump analyses I'd made rather casually a few years before. Fortunately they showed rapid growth, and by some rather vague and unfounded assumptions that the small sample was generally valid, plus a lot of detailed notes about reproduction coming in, which I'd taken in my silvical report and planting reconnaissance rambles, the elimination was eliminated. And who says all that early "technical" work was useless? (Except that late so and so, Roy Headley.)

I suppose all this boundary and land examination work proves first of all that Ed and I were expansionists and land grabbers rather than contractionists and free handed givers. We have always accepted such strictures with pride.

This isn't the place to tell the whole story of the vast damage to R-5 done by these two jobs under the leadership of myopic men - Sherman and Barrett. All an avoidable retreat.

Then of course 1914 was notable for the Siason fire. I've got ahead of myself. I'd talked Dick into letting me take leave in July, and Mabel and I were having a swell time in San Francisco and visiting my folks. She sure deserved a

break and we were actually solvent. Well, I got ordered back pronto, and put in days and nights on service of supply. What a hysterical and costly mess and travesty of fire fighting! And what a source of tall tales and bull sessions for the years to come. Dick Hammatt has told the story of how he and A. W. Smith, Fiscal Agent, borrowed cash from the Madam at Old Cr. to pay fire fighters and got them out of town. In the scramble, time hadn't been kept and the imported jail birds loudly claimed straight time. Ed Kotok took on the job of dealing with these troublemakers with ^o old Uncle Joe Elliott standing by to hustle them as needed it off to the hoosegow. Another deserved feather in Ed's cap it was.

The ironic aspect of the whole business was that on the P.M. when the fire was at long last out, a fire got hold of the Catholic Church at the south end of the two main blocks of houses below the tracks. With the usual heavy south wind, no water pressure and no effective fire equipment or organization, away she went from roof to roof and yard to yard, with hordes hauling out furniture etc. The Hammatt's house was last in the two blocks and when it took off, I decided something had better be done about our place, maybe 100 feet farther on and with a couple of shacks in between.

Some of the imports were ready to climb on the train, but came down. Swift Berry and Jack Boyce, derbys, choker collars, store clothes, and all were on my roof with an extemporized bucket brigade to supply them, but it was still tricky. So

I gave the word and a gang started moving me out. Books, groceries and utensils and small stuff was piled on our two (2) rugs, drug and carried across the sidewalk, sewer ditch, road, another ditch and through a fence into a green field. Four guys casually picked up the piano and it followed. Then suddenly it was all over and there was the empty house. It took some coaxing to get the process reversed - I remember eight guys grunting and groaning with the piano. What a royal mess to straighten up against Mabel's eventual housewifely return.

The irony was that the Sisson fire was fought so *practically* ~~beauti-~~ fully and expensively to "save" the town.

To add to my personal complications, when Mabel and I left in a glow, I'd expensively told Swift, Jack and Ed to go ahead and use our house. They did and how. Our meager stock of linen and bedding was dirty, ditto our dishes and utensils, and the most unkindest cut of all was that in one of their large and uninhibited moments they'd decided they needed boutonnières and had pulled up for same, three of my cherished and nearly ready cabbages in the little old garden plot on which I'd labored. Of course their heroism on my roof made it inappropriate to say what I really thought.

Another worrying complication shortly arose. I gaily used a T.R. for the second round trip to San Francisco and turned in on the expense account a claim for the original ordered trip from San Francisco back to the fire. It appeared, according to

the damned Fiscal Agent, that I hadn't been in San Francisco officially - and so, of course, I couldn't collect for a trip I couldn't have made. I sweated long and hard, and eventually some administrator figured out a gimmick and I was saved.

In 1914 the late Merritt Pratt, teacher at the new U. C. Forest School, talked someone into having the forest do a yard depreciation study on lumber at La Moine. I was it, and went down many times to tally each board as piles were torn down. In late fall the rangers and I summarized it all and sent it to Pratt who, in his eventual publication, gave me a small footnote in fine print - the first but not last case of scientific thievery I met. I still don't like it. Anyway, I learned about grading lumber.

Winter reconnaissance in January, 1915, was set for a camp at Pumice Stone to do several thousand acres of red fir and pine at the south base of the mountain. McCloud had applied for it, for the first time abandoning its haughty and lordly attitude. Standards of mapping and cruising were set high.

Dick sent Shorty White and Ed Kotok, with his bride going along for the ride, to haul in the non-perishable supplies. They reached the cabin with a November snow storm on their tails, dumped the flour, ham, etc. on tables and floor instead of hanging it from the rafters; covered the two sacks of apuds shallowly with pumice at the southeast corner of the cabin; and got the hell out.

I took my crew in from Bray - the shortest route. New faces were Uncle Joe Elliott and new Deputy Supervisor E. B. (Betsy) Long, with old campaigners Bob McInroy and Fred Williams.

Woodbury and Swift Berry finally condescended to come in for a brief look see, and weren't much help on the hauling. We finally started up the last long hill in late P.M., and Joe and Betsy got to hitting the bottle. Shortly they couldn't even navigate, to say nothing of pulling. So we left them and got our two sleds to camp, unloaded and went back to rescue the bastards. We were wore out and mad.

The cabin was a mess. Mice and such had moved in and gaily disported themselves in and with the flour and salt meat - there was tangible evidence thereto. The shake roof leaked badly. There was no wood supply. Next A.M. we found the spuds - largely frozen. If you've sorted such you know about it, and we salvaged all we could. We went to fill our lanterns with Elaine oil, and found that the dummies Ed and Shorty had carefully provided us with boiled linseed oil. That one Freddie and I solved by Skiing the seven rough miles to Medicine Lake, breaking into a little old resort, and hooking a couple of 5-gallon cans of Elaine. We left a note.

First we ran a closed traverse by transit and stadia around the timber, setting posts every ten chains on true direction. We made cute little snow shoes for the transit legs and a canvas hood for the gun and left it set overnight. There was a spell of -18° mornings, and working the adjustments with henskin gloves or bare fingers was no joke. I'd watch Bob's lips through the transit as he held the rod and waited for me to signal. I had a darn clear idea of what he was saying.

Wood and Swift shortly left and we settled down to routine. It was a daily ritual to look sixty miles south to the eastern Lassen, where Ed was putting in a winter, and figure out new ways to curse him and Shorty for their sloppy job at our stand.

Then a whacking big storm moved in for a week, and there was nothing to do but play solo. A couple of McCloud mill hands were trapping out of a neighboring cabin and they, fancying themselves as solo players, would come over and cut in. We shortly broke Betsy; Joe was too wise to sit in; Bob, Freddie and I had played with and against each other for four winters and it wasn't fair for an outsider to tangle with us. So soon we had the trappers putting up their few furs for appraisal and a credit. There wasn't more than ten dollars cash in camp. Then we'd clean them of credit.

Perhaps this sounds like a big money game - actually it was 5 & 10¢ solo, in which a guy might win or lose five bucks in a winter. Solo and 10¢ limit poker - a darn dull game - were all I'd ever stand for in any of my camps. In other camps, where no-limit poker was allowed, someone got hurt to the extent of half a month's or more wages, which he owed to his creditors, and moreover, when your mind is on a game like that, you aren't going to concentrate or put out on the job. So I early learned the lesson of watching and controlling such things.

When the storm ended we had a ²hell of a time finding the

transit - just a dimple in the snow, and I had to calculate the new elevation. So we finished up - my traverse closed vertically and horizontally within acceptable error and later I made a fine map.

Going out was a cinch. We stopped between trains in Weed for the usual haircuts and shaves - we were a shaggy lot - and a few snorts. Freddie was broke so I financed him out of my solo winnings. Did we tell Shorty and Ed when we got to Sisson! I hope it made better men of them.

If you are disposed to sneer at my preoccupation with food, and particularly eating meat, I'd remind you that I was a vigorous young man, doing a lot of long days of hard physical work, and broadly speaking always hungry. So were my colleagues and crews, and the one sure way to lose them was to skimp on the meat and eggs. Also I refer you to any of the standard books on exploration in the polar regions or on climbing the great mountains of the world. From those winter jobs I'd get back home famished for sweets. Mabel would have a fine large chocolate cake, and between dusk and dawn I'd encompass it and feel much better.

Since this is a moderately true account, I'll admit that Ed and I jointly and severally didn't always go like a bird straight back to camp from wherever we quit work. In other words, we got lost or badly misled sometimes.

One day, for example, out in the Bray country, we had to ford Antelope Creek. Ed insisted on going downstream and I was just a ^S firm for upstream. So we split and once out of sight of each other, we began running, figuring to make the other

guy look bad. Pretty soon I began veering over in Ed's direction, worrying that maybe he was right. Ed did the same and eventually, huffing and puffing, we criss-crossed. By then we were both confused. We did some extra miles back to camp. We were were out.

Another time down in the Big Bend country we had to get across a rocky gorge on ^{SK}Foot Creek. There was a big Douglas fir windfall I figured I could coon across. Ed didn't like it and started upstream to look for something easier. By the time I got across, Ed was out of hollering distance and I got to worrying and started upstream on my side. Meanwhile he'd found a place and set out to catch up, hollering as he went. So generally speaking we went as fast as we could away from each other and away from the right course. Finally it started to get dark and each of us took his own course. We made it to the ranch where we were staying, long after supper was done, and the housewife sure was pecky about cooking another meal, which we needed.

So we had little accidents of this sort, with no ill effects except extra leg work and late meals.

Come March, 1915, Mabel expecting imminently, and courtesy of Dick and DuBois, we went in to San Francisco on what was called a "reproduction detail". We got a place in Berkeley to live, and on April 13, 1915, our fine, plump daughter, Barbara, was born at Alta Bates, with our old McCloud friend, Dr. Legge, officiating. Pleased and proud and thankful we were, and even though our darling was a devotee of colic, particularly

at night, nothing could dim the glow.

Along the way, DuBois called me in and told me I was to go to the Feather River Experiment Station to do the fire research projects he had dynamited into the otherwise ritualistic program. I suddenly found out how I didn't want to leave the Shasta, but Coert was a firm man and I said, "Yes, sir."

Back in Sisson, Mabel stayed long enough to display our treasure and then headed for her folks' while I took on the packing and the winding up of the more urgent official jobs. And on July 15, 1915, I left the Shasta after five busy, interesting, stimulating and happy years, solvent and with an impressive salary of \$1600 p.a. - up from the initial \$1200. How well I remember that packing job - but it all held together.

Well, perhaps this chapter can stand a little ruminating. I necessarily learned a lot from the very nature of the varied and diverse jobs I worked at; the educated and uneducated guys in the service I worked with and for; the kinds of people I dealt with at logging camps, in the villages and at the scattered hill farms; from the constant challenge to find ways and means to get jobs done; from the real, earthy and competitive world so different from the textbook pictures; from the conscious procedures of training imposed by the District Office. I don't want to be too solemn about it - it was mostly exciting and fun - but I learned something about making decisions promptly and on the facts in hand; about being a

boss in a small but real world; about accepting that there's always an answer, no matter how impossible things look at the moment, given will and work; about working in a small and highly informal staff; about the enormous strength and skills of the loyal, dependable hand-working old time rangers and guards; about the vast distance to go before forestry in Northern California could become a reality; about the unending conflict at the ground between private wish and public good; about negotiating; etc. I've tried to sketch some of the jobs, situations, pressures and people from which and whom I absorbed the start of a post-school education. Books weren't too important during those years: the other things were. This sort of job was for me. Certainly one of the learnings was how well Ed's and my minds worked together.

One lesson I learned the hard way - never slap a young fellow in the face with a wet diaper when he wants to show the boss some of his work. Both Ed and I got the treatment from Dubois and Headley when we tried to get them to go a whole mile to see our Gisson burn planting. They were just scornful - the work didn't make any difference anyway. We were more mad than hurt, but it sure rubbed the bloom off the god-like image of higher ups. I hope that in my later years as a boss I remembered.

These five years were the principal basis for whatever experience I had in administrative and executive work, when ten years later I got tagged for the District Forester job.

I wouldn't know which was most important - perhaps the undying respect I got for hard-working men who put out, as a

matter of their own pride, to the limit. Conversely, I absorbed the contempt of such men for the slacker, the angle-player, the gold-bricker, and the corner-cutter. ..

One of the things that made the job interesting, despite plenty of hard work and far from luxurious living and working conditions, was the knowledge that you were the first forester to get a look at many chunks of country, first to cruise the timber, to study rate of growth, to analyze why there was or was not young growth coming in, and so on. If you had any curiosity at all, the rewards were worth the labor.

Along with it, you absorbed the very different way in which rangers and guards looked at the same country - if there was a fire how did you fight it; where and how would you locate a trail or telephone line from here to there; what mountain top would best serve as a lookout point; where was a feasible spot for guard cabin and pasture; and so on. You had to be a dull fellow indeed not to learn from these sternly practical realists. If you were blind to everything but one or two ruling interests, then you didn't learn.

So, as I've written in detail elsewhere, you had a chance to become a new kind of hybrid, a blend of the two dominant genetical forces - the theoretical and the practical. Some of the bright young men of my time did and some didn't.

The Experiment Station, 1915-17.

The station, when I arrived at Quincy in mid-July, 1915, was in the throes of starting the modest residence for us, and that big project kept little Director Alfred Mitchell busy. My job was to get going on the fire studies - examination of light-burning areas on T. B. Walker's Red River Lumber Company, laying out and doing an experimental l.b. area, measuring fire damage on burned areas, studying rate of spread by means of sample fires. J. Alfred was all set to slip me the horde of nursery research projects which had been going a couple of years and to get ready for the outplanting of the various lots, due in the fall. So I did.

The rate of spread looked most urgent, and I got a working plan whipped up, got the necessary tools and equipment, and scouted around to locate areas. Then I'd have a heck of a time getting a couple of guys to help me on the burning and recording. There were a couple of student assistants and a couple of able roustabouts, but they were kept busy on trifling maintenance and construction chores and small routines of observation. J. Alfred usually used up half of each day in a ceremonial mail and shopping trip to Quincy. The other half was in the office and watching other people. Anyway, I got started, ironed the technical bugs out in the first couple of fires, and before the early rains had a respectable number of fires in the records. It was the first such work done anywhere.

My father came up and alternated between his beloved fishing, ditto photography, and helping the carpenters - he had a good time.

Then I got status from the Plumas office and started scouting around for the light burning area - Mt. Hough, Claremont, the Meadow Valley Country. I finally found a suitable area near Snake Lake - which will be heard of again - but too late to do anything that fall.

Eventually, in September, our place was done, the belongings arrived intact, and I went down by train to Marysville to meet Mabel and our child. It was a hellish hot afternoon's ride back up canyon - air conditioning had not been invented - but we made it and settled down.

It was a grand fall. There were lots of mountain quail and gray squirrels in the hills back of the Station, and after work I'd take my old shotgun and go out, telling M. I'd get some quail for supper - and come back with squirrels, or vice versa. We lived high. Then I staged over to Westwood and made a conclusive study on Red River light burning, but mostly I was home for the first time in five years. There was a nice Stanford lad - Jere Sheldon - and he'd come over in the eve and we taught him solo, and he became a devotee of our Barbara, as did Yip, the Chinese cook for the government mess. In late fall a clerk, George Austin, arrived and he, too, became a friend and a slave of our young charmer, who definitely enjoyed it all. We roamed the hills and took many photos of Barbara, some of which embarrass her today. There never was a more-photographed young lady.

I got the outplanting done as winter came, and dove into the file drawer of unworked up data on the nursery stuff.

Woodbury was nagging about reports on same, and J. Alfred had just been too busy. By winter's end I ground out the required and caught up to date. About this time I had the thrill of seeing my first professional article in the Proc. of the Society of American Foresters. It was trivial "Light Burning at Castle Rock", but it was a great stimulus to work my stuff up promptly and submit it hopefully.

It was a long hard winter, with several feet of snow, and Mabel likes to recall that she wasn't off the compound from December to March. Over Christmas, everyone else was gone and it got to -18° . So about 1 A.M. I'd crawl out, heat Barbara's bottle and paddle over to stoke the wood furnace so that the greenhouse wouldn't fall below 55° and damage the horde of seed tests going on. I started the wood burning heating stove in our little house in October and it never went out till spring. So it was a busy and happy winter, except that Barbara once coasted along the edge of pneumonia and we had anxious hours of steaming and rubbing her and listening for every breath. No doctor available.

Gosh, how we saved money that winter. No rent, no utilities, and about the same chances for spending as the guy on the desert isle. We got some more furniture and by spring were ready to buy a car - the baby Overland, which I learned to drive, or at least start, stop and steer on the narrow dirt roads around the Station.

Orders came to get up to the Shasta to take charge of the planting crew - Ed was going onward and upward to the Eldorado -

and in April I took off in the car via Indian Valley, Westwood, Susanville, Hayden Hill, Big Valley, Glenburn, Bartle and McCloud. It was three long, hard days. I'd neglected to get chains and got stuck on Hayden Hill and in the gumbo of Big Valley. Along the way I negotiated for halter ropes and chains at farm houses and improvised chains which always wore out quick, but I made it, and did the three weeks' planting job with about 25 braves.

The working stiffs on these spring crews were lumberjacks who'd worked their way up to Sisson after a long hard winter in San Francisco and were waiting, broke, for the woods to open. Always they needed new boots, trousers and shirt. When I paid off in cash, invariably the lads would head for the Row and quickly end up broke again, and with no outfit.

So I started holding out about \$10 - \$15 for each of the braves that asked me to, and when Slim or Shorty or Blackie had sobered up, I'd lead him to the Schuler-Knox Emporium and see that he got his needings. I suppose it was illegal, and I know I used to be nervous about having several hundred dollars in cash. Years later I used to run into some of them along the San Francisco waterfront in winter - still broke. About the only fun the lumberjack had was the periodic blowins, for which he paid plenty. He wasn't yet the concern of national social policy.

Then I had a long stretch on staking sample rows, re-examining ~~and~~ planting areas and various plots all over the place, and wallowing around in brushfields on planting reconn. Mabel and our child came up, we were entertained generously

by the Hammatts and the Graceys and, since Kibel's folks were in Ashland, Oregon, I shoved the Overland various times over the very sporting dirt road between Bisson and Ashland.

Under Headley's cursed permitted burning policy, there was an application from Dick Smith to burn a big area of the brush in Squaw Creek which he'd caused by his unpermitted fall fires. Jesse Nelson, inspector of grazing from Washington, came out and we rode with Dick and Ranger Burnett Sanford for some days, and I saw Camp Welcome with the sun shining and no rain. At the end, Jesse turned him down hard, Dick got mad and stomped away, and that fall he really turned loose with incendiary fires. And it took several years to get rid of him by due process.

In September, 1916, we made the hot two day drive back to the Station with many punctures en route, and trouble getting Barbara's food. Then I scrambled around to do some more experimental fires, fall planting of experimental stock, examinations, nursery work and the rest. One of my chief recollections of the winter was when Barbara got hold of my dirty old calabash pipe, sucked on same and was a very sick gal for several days. Kibel took the day shift and I walked the child at night. But we got through it. My brother, Joe, was up to visit during the holidays and had fun hunting.

Come February, 1917, and the powers decided to shut the Station down, and I had a nervous time for myself. But they decided to farm J. Alfred out to the Lake States, and I was to move to the District Office in charge of planting and nursery work and research of all kinds, and the sole practitioner thereof except for Pilgrim Creek Nursery. So my

neck was safe, and I took the family down to stay with my mother in Palo Alto, while I took off for Washington for a couple weeks' meeting of researchers with Earle Clapp and other brass. Earle was just getting hold of his small, poorly organized and ill-nourished Branch of Research and the experiment stations. We all had to make reports and listen to lectures. I saw Wilson's second inauguration and - the one on the slogan, "He kept us out of war."

Back home I had to buzz up to the Experiment Station to transplant seedlings, set out some more transplants and do the necessary records. There was a good, all-around man - Paul Thayer - there as caretaker and he and I did the various chores. Then a switch to the Shasta for another planting job at Widow Creek. The nursery was doing a very bad and sloppy job, and we got a lot of plants that were actually dead, due to exposure in shipping. So I tied into that and the nurseryman, Fred Graham, up and quit and Dutch Sullaway took over. It wasn't Fred's fault - he was trying to be District Ranger as well. One of the more ludicrous examples of Headley's brand of economy and efficiency.

All this planting and such was cramping my style on the firework, but most of my salary and expenses came out of planting money and so.

Then in April I had a chance to go as a junior officer with the Tenth Engineers, but it seemed best to turn it down.

The summer of 1917 was darn busy. I worked long and hard to get the rate of spread job ready to report on. Paul Thayer and I rode six miles out and six back and built 2½ miles of

fire line around the Snake Lake light burning area, hoping to get it burned that fall. There were various burns to examine, working alone. And there were always the Shasta planting exams and plans for next year. It was clear that planting in dense green brush was no go, so I hired three good workers to cut wide fire lines on two sides of a 2,000 acre block of brush on the south face of Mt. Shasta, figuring to burn it next spring. It was an all-summer job, but they did it well. I made a trip to the Sierra to examine the light-burning on White and Friant about which Stewart Edward White was being highly vocal and troublesome. And thus got a first look at another piece of country.

Also I staged down to Happy Camp on the Klamath, and hunted up a couple of thinning plots that Shirley Allen had put in. Then I cajoled the ranger, Ernie Sutcliffe, into helping me remeasure them.

And on July 25, 1917, our daughter, Betty, was born. I dashed down to welcome her, and then back to the Station to finish packing up, which was going slowly, and which I was doing alone. In due course I finished, Mabel rented a house at 130 Fulton and I shipped. She had to handle the practical details of getting settled, for I was off for a trip on Region 6 planting with their expert, Julius Kummel, which ranged from Tillamook to Applegate and to the big Wind River nursery. My Washington planting boss, Nick Carter, seems to have thought I might learn something. Then on the way back I got involved in one of the various "let burn" brush fires on the Shasta -

another of Headley's malign policies - and got thoroughly and bitterly disillusioned, as were many others. So I made an unpopular report on same. Headley was by then Acting - Coert DuBois, the District Forester, had gone to war.

Just before Stanford started in the fall, the Overland, my dad and I took off from the Station, where he'd been visiting, and in two dusty, jouncy days got to Placerville, where we visited Ruth and Ed, and so on to Palo Alto, where I hunted up our house late one night and moved in with my own family.

During these two years big brass Clapp, Zon, Carter and Dana appeared variously to inspect. Their interests were in the conventional nursery, planting, sample plot and weather and type projects; for the fire studies they had no feel or interest. I got little good advice or stimulation from any of them.

When I got a desk in the dim, badly lighted library in the Adam-Grant Bldg. at 114 Sansome, started commuting and was no longer on an expense account, in San Francisco, ~~The~~ Experiment Station chapter ended. They were two good years. I learned a little bit about the discipline of experimental technique; about planning out projects; about getting them done, alone if necessary, or with untrained pickup help; about driving myself to write up results promptly, without stalling for "just one more year of study"; about the discipline of writing under the hard and critical eyes of my father and Doc Heinicke, who were merciless. My center of interest was swinging more and more to fire, the preeminent problem about which so little was known beyond the sometimes excellent general judgement of old timers. Also

I relearned that there's no law against a boss doing some work,
and that to command respect, he must work.

Researching out of San Francisco, 1917-1926.

That winter, 1917-18, I was going in several directions at once. Under my boss, Woodbury's, stern eye I ground out a long, detailed report on nursery and planting to date. The girls who typed it referred to it as "the song of death". Not so far off, at that. Then my Yale classmate, Bill Sparhawk, was around, doing his now-forgotten "Fire Liability Rating of Forest Types", for which he was using the individual fire reports. I helped him on this big chore job, and the idea dawned that the individuals could be used to study fire control organization as well. So I personally abstracted about 6,000 individuals and started fumbling around to see what it all meant.

Heedley, as Acting, had given me a nice welcome by reiterating that the nursery and planting stuff didn't mean a thing; I'd better do something practical pronto - or else.

Another complication was that, as a sort of final gesture of respectability, the Experiment Station had, in 1917, re-measured in an off-beat year all the permanent methods of cutting plots - Shasta, Plumas, Tahoe, Stanislaus, Sierra, Sequoia and old Kern - and I now fell heir to tons of thousands of individual tree measurements. For this I finally wangled temporary help - a personable, bouncy White Russian fugitive from the Bolsheviks. The girls thought he was just too cute, with his perky little mustache and all, but his arithmetic was far from perfect. But help was help and I hung onto him and ground out the series of progress reports, one per plot as I recall, with the first attempt to evaluate the "second cut in thirty years" basis on which they

had been marked and cut. Evidently further study of a good marking basis was indicated, and I took on that job. More of it later.

With personal finances again a worrying problem as well, I remember it as a nervous winter. The uncontrolled inflation just ate us up. Betty's nutrition was a crisis, finally solved by a diet of goat's milk. I carried a lunch to save a few pennies a day and bought meat at a big San Francisco market for ditto. Mabel's end was hard and rough, and she did it manfully.

But there were some bright spots. We saw much of my folks, and Papa took hordes of photos of our darlings. Mabel and I pinched off for season tickets to the Stanford Concerts. I remember falling asleep during the Tannhauser Overture - that's how wore out I was by night. During the winter quarter Papa took a cottage at Carmel and we visited for a couple of weeks - as we did in other winters. The little Overland took us to beaches and to rocky points, where Papa and I caught fish, and Mabel and the kids hunted shells.

In the fall, with a friend of my young brother, the three of us in the Overland would go over late Saturday to the Miller and Lux Santa Rita Ranch near Los Banos, in those days a five hour trip. We'd keg up in a barn, take lunch stuff, and hunt Sunday A.M., get perhaps 50 or 60 grain-fed ducks, and then grind home late Sunday. It was one of the few times that my hunting paid off economically - I saw to it that expenses were shared. How Barbara loved the decoys!

Several of my trivial articles on the nursery experiments were published by the Journal of Forestry - new organization of the Society - and I suppose I was pleased.

During that winter several of the old heads - Olmstead, Meinecke, Woodbury, Mulford - began to organize and call small groups for discussion of live and controversial questions, among them light-burning and the marking system for timber sales. I was about the only one around who had done even a smattering of analytical study of these and so I was put on the docket and got some good practice in catch as catch can debate with some pretty sharp minds. At one of the gatherings, I tangled with Stewart Edward White on light-burning. He may have been a fine writer but he was a lousy scientist. These small meetings were the forerunner of the formal N. Calif. Section meetings of the Society.

Come April, 1918, I had another Shasta planting job. About the time I got the crew and camp going at Widow Creek, along came an afternoon of heavy wind from the right direction and we touched off the area for which I'd prepared the summer before. It really was a noble and impressive burn. By eve the wind had dropped and I took a couple of guys and we went around the 2,000 acres burned and hot-spotted. Next A.M. we did it again and went to planting in the P.M. Gosh, it was dirty work, but we could see what we were doing. No one ever came close to doing such a burning job so cheap and covering only what was intended.

After the planting I jounced around on the Klamath, Shasta and Plumas doing fire damage studies, and in the fall I moved in on the Eldorado which Ed had let slip the year before,

and in between examining burns Ed and I had long arguments about the studies I was doing from the individual fire reports.

During my stay, Ruth took a group of girls up to Lake Tahoe, and Ed and I batched. Somebody gave him a quarter of venison. There was a fine patch of corn in the back yard which Ruth was figuring to can for the winter. We found out what a delectable meal could be concocted from venison steak and corn on the cob, and the two came out just even. I had a hunch and left just before Ruth returned, and Ed faced the storm alone, though of course I got blamed for the rape of the corn patch.

After working up the reports on the permanent methods of cutting sample plots in 1917-18, I took to carrying an increment borer along, poking it into helpless pines that I met, and trying to work out some relation between appearance of trees and their growth rate. That was what the guys on timber sales wanted and didn't have. By November of 1918, I figured I had something to tell about. Woodbury called a meeting of some supervisors and sale officers at Feather River and put me on to demonstrate. Out of it came a major revision in marking, including what I believe was the first, if crude, tree classification. I remember well how eager they all were for a little rationality and simplicity. This job came under the heading of my liss n job.

As I went around, I'd try to spend part of a day with each sale officer on the way and show him about the increment borer and how to relate growth to tree appearance. There certainly was no resistance to this sort of on-job training, and I made a lot of friends out of it. I was pretty serious

In the fall I was scheduled for a trip to study planting and such in Utah, Montana and Idaho. We'd rented our house to some Army officer, and Mabel and the gals went north to visit her folks. The guy stole some of our cherished books, but the rent sure came in handy. My trip was during the big flu epidemic, and I wore the miserable gauze masks that were required and saw a lot of country and guys. Met the family in Portland on Armistice Day, and so on back to our raided home.

In prodding around on his research organization, Earl Clapp came up against the great and perennial problem of getting the administrators to pay some attention to research results and researchers, both of which were generally looked on as inconsequential or trifling by guys who prided themselves on being "practical".

It had to be accepted that researchers had to sell themselves and their wares. Noone was camping on their doorsteps begging for the word. So I got tagged with the duty and title of liason officer with a mandate to make the administrators like it. I worked at it, trying to learn to put things simply and to relate the results to the things the practicals ran into. This, too, was good experience and practice, sometimes pretty frustrating.

Even though there was no Experiment Station, Clapp insisted on the annual Investigative Committee Meeting, at which regional office administrators were decoyed for a day or so into hearing from the researchers, discussing and suggesting projects. It all had the effect of getting some interest shown,

and a little better chance to get some tangible help from the regional money bags - which from my standpoint was good. Also it was good practice in the gentle art of salesmanship.

The winter was really rough financially - no more concerts, no more duck hunting, no new and needed clothes for M. and me. Mabel kept my one suit patched and I wore my Shasta mackinaw as an overcoat. Borrowed all I could on my insurance and peddled such things as my saddle and drafting set to get a few dollars. Also the Carmel lot, which I'd bought during college days, went down the stream. We did get the trip to Carmel. Otherwise we dug in to weather the storm.

In February, 1919, Supervisors' meeting at Davis. DuBois was back from war and appeared in full military regalia. I was on to tell about the fire statistic studies, and decided I might as well be hung for a sheep as a lamb, so I put up my charts and maps and dove head on into a clear exposition of the damnable results of Headley's policies, which the figures showed clearly. Boy, it got hot, with Headley challenging sneeringly, the Supervisors, who hated his guts, on my side, me standing pat, and DuBois getting the idea, to his hatred and disillusionment. DuBois and Headley had their definitive split, and Headley got kicked upstairs and my official life got saved. Also I got some loyal friends among the Supervisors and DuBois, for the first time, acted as though I existed. Also I got an unswerving enemy.

After the meeting DuBois promptly restored the earlier policy and of hitting fires fast and hard and holding them to minimum size. He chiselled out some money to start building back the lookout and guard services and put me to work with Supervisors

Benedict and Rogers on parcelling the money out. I always thought this episode proved that I was working at my liason job. Certainly from there out Supervisors were receptive and friendly on the fire studies and on research in general. Headley's enmity was usually disguised under a smile - but it was there.

With much hand labor I'd put on a state map the location of every one of the thousands of fires for which I had reports. The fires up to ten acres were blue dots, those larger were red. It was very instructive, and when DuBois saw it he promptly commandeered it for his office wall. My chief feeling was "there goes a lot of work". *I was right.*

Ed Munns who, for half a dozen years, had been research in Southern California, was back in Washington on a wartime stint. He'd left behind a bunch of transplants at the little old Converse Experiment Station (now Camp Radford) and a lot of kinds of eucalyptus in pots at a commercial nursery in Pasadena. So I got orders to do the outplanting as Ed had planned it.

Somehow or other I got into the Glass' home on upper Santa Ana, moved in on them and cajoled Dudley Glass into climbing the hill every day and helping outplant the Converse stuff. Then I walked out.

I hunted up the Pasadena nursery, caught Ranger Fred Jeken and got him to show me Del Rosa, where the eucalyptus were to go, and got them in. Many years later I used to claim a proprietary interest in the stands there. Anyway it was first look at a piece of Southern California.

Word came that spring, 1919, would be the last planting job in northern California. I was fed up with fighting the

brush fields, and picked some areas near the Pilgrim Creek Nursery with just nice open bitter brush and rabbit brush, which wouldn't sprout in your face after burning. So Ranger Overmeyer, Belknap Goldsmiths, the braves and I did a brisk burn on a few hundred acres and we planted. It turned out brilliant success, and there's now a nice little patch of trees bearing cones. Except for some experimental lots from Feather River, that was the end of my reforestation work.

After ten years of bucking the brushfield problem, the main conclusion was that root competition had to be eliminated if the young trees were to make it. Burning wasn't good enough, and noone could foresee the potent trail builder which ten years later was to do the trick.

After the field work ended, I started to write it all up in detail, and in due course "Nursery and Planting Practise in Northern California" appeared as a Department Bulletin.

In Spring, Ed Munne came back from his wartime stint in Washington, and we got busy working together. Gosh, it was wonderful to have help, especially a hard-working guy with savvy and ideas like Ed. Our first job was doing the Snake Lake experimental light burn (remember?) in May. After the big fires of 1917-18, the light-burners were again on the attack, and two of the more vociferous - E. A. McAllister, the G.P. Land Commissioner, and Capt. Joseph A. Kitts, moved in on us to take a look and check - not to help. Ed and I did the 250 acres alone and, except for a long hitch of work, didn't have any trouble. The only dishonest thing we did was to pile some pine limbwood in big fire scars of a few large pines, with the gratifying

result that they burned down and became damage statistics. DuBois had said he didn't want us to miss anything. Then we did a detailed examination, and didn't miss anything. ..

Mabel and I yearned to buy 130 Fulton, which was up at a fine low figure, but there was no possible way of getting or borrowing a down payment, alas.

That summer Ed and I did some sample plots in young growth around Feather River and had a lot of fun. Dr. Meinecke had taken over the Station as a plaything, and Ed and I got relegated to the cook tent platform up the hill, on account Doc didn't like our disorderly ways. Maybe he was right. Part of the time Ed would go on his own projects in Southern California, and I'd go back to working alone.

In the late summer we got the big idea of doing a real job of a second growth yield study of Eastside pine - the vision of intensive forestry just around the corner was still burning bright. So we got driven in to the Spaulding Ranch on Eagle Lake on the Lassen, and moved ourselves in on a subsistence rancher. There wasn't any room in the family shack, so we got a 7x9 tent on the lake shore. The mosquitos were numerous, large and murderous and the only way to survive at night was to build a smudge fire of the most pungent brush in the door of the tent, and then fight it out - to strangle or be chewed to death. We got saddle horses to roam and hunt up even aged patches in the still untouched forest. That was how the job was done. One day Ed's mount got kittenish and took off on a wild, leaping dash over and around brush and logs, with Ed hanging on grimly. As usual, he hadn't bothered to strap down his carrying case, and

we came up missing our one and only hypsometer. After a half day of sterling back tracking plus luck, I recovered same, just a little bit bent, but we patched it up. I worked the study up and quite a while later got my paper in the highly scientific and choosy "Journal of Agricultural Research."

In the fall I finally got around to remeasuring the eight methods of cutting plots at Massack, near the Experiment Station. They'd been installed by the Station in a real scientific way and were supposed to be the last word. I'd convinced Doc Meinecke that there was much to be learned from them in his line, and he assigned his crew of strikers - Harry Richmond, Willis Wagner and Rhodes to take his special notes and to help on the remeasurement. The latter was what I was after all the time. So we ground out the job, and Lunc Dunning in due course fell heir to it all.

I'll have to back up. June 30, 1919, was the last day before legal prohibition. I was at the tiny hamlet of Castella, and starting out to work, dropped into the Johnson brothers' little general store. The boys were setting them up to all comers, figuring like everybody else that prohibition meant prohibition. There was a deep mourn with each toast to the "good old days", and a certain air of panic among the drinking men as to what the hell they'd do now. Through the day and into the night men came and went as word of the free party got around. One of the hosts collapsed and someone took his place. Prospectors and such dropped in from the Frigidity side to find out if it was true, and joined the mourners. I was in on the start, and after approximately an honest day's work, again for the night shift. At

midnight, the few who could still stand wound up the sorrowful and morose party, and the extant brother ceremoniously dumped the remaining whiskey in the gutter. Ah me! Next day was awful hard going.

By fall 1919 several new people moved into my world. DuBois and Headley were gone, and Paul Hedington appeared as D.P. bringing along from the Southwest Bob Deering as Chief of operation and Paul Hitchlynn as Inspector. My old buddies Dick Hammett and Ed Kotok were already in as Chief of Public Relations and of Fire Control. Red apparently had heard good things about my fire studies and was generous in letting me go my own gait, and in letting Ed K. and me work together. Also Pitch and I worked out a really complete individual fire report form, for which I'd been carrying the torch, and Red made it official. Also I acquired Duncan Dunning as full time help, making the impressive total of three in the research crew, plus a fulltime clerk. We promptly started making big and ambitious plans.

Ed Munns and I weren't too systematic in planning out our projects, but Dunc had an orderly mind and thereafter was a good influence. Ed and I had come up through rough and tumble experience, where often you improvised plans as you went along.

Meanwhile our third daughter, Jean, was born Aug. 6, 1919, and Mabel's problems grew. We left 130 Fulton and moved into Mama's big house on Melville, to help her out. Whooping cough hit the girls in the fall and how. Mabel or Mama had to be with infant Jean every moment. I took the night shift with Barbara and Betty in another room, and got so I could pick them up by the

heels when they strangled, and change the beds as not infrequently required - all practically in my sleep. I think I contributed on the voluminous diaper washing project, too. It was a long hard winter with finances bad, though I'd inched up a few hundred dollars in income. But there were no luxuries or amenities in our lives. Mama's house never did get warmed up.

In the shop, too, there were no dull moments. The light burners were having a field day, and Ned of course gave me the job of making the factual answer at a big and unfriendly meeting. All the fire damage and light burning studies went into it - forerunners of "Role of Fire" that Ed K. and I did later. The battle was resolved into an investigation by Bill Hodge under a committee of F, B, and outside bigwigs.

Ed K. and I got in some preparatory work on what later became the "Statistical Study of Forest Fires, 1911-1920". I even talked "money-bags" leering out of an adding machine, which made life easier and more accurate than the hand work method I'd used to date. Things were looking up!

That winter someone in high authority slipped me the job of writing a booklet on "Forestry as a Career", to be used as a handout in colleges and universities. I remember sweating over it, producing what was probably a small and leoparded mouse, and getting it off my neck.

The first big job Ed K., Dunc and I did was a series of thinning plots with controls in yellow pine second growth near Quincy Junction, in April, 1920. We jungled out on the tent platform at the Station, being still in ill-repute with Ned, and

made a deal with Doc's caretaker to taxi us back and forth. It was Ed's baby and it took three weeks of hard work, ending up with a night and day of burning the large mass of slash we'd accumulated. The grub had been selected by Ed, and we worked our way through box after box of Aunt Jemima Pancack Flour, which I still can't look in the face. Camping was sometimes cold and wet, but we did her.

Then Dunc and I went over nonchalantly to reburn ^{Snake}~~Neke~~ Lake. It would have been O.K. except that Plumas Supervisor Dave Rogers came out the night of the burn, grabbed a brush burning torch and ended up stringing fire outside the line on two opposite sides. Then he left, and Dunc and I found out the bad news next A.M. Slowly we retreated down hill, losing line after line from rolling cones and such, hopefully thinking the Plumas would send out help. It didn't, and in three days we wrangled out our fire at about twice the size of the plan. You can understand our deep affection for Dave and the Plumas. Try that kind of a two-man job sometime.

About that time I got orders to do the Minimum Requirements and Desirable Practices reports for the Pine and Redwood regions. Forest devastation was a big and fighting issue and this was Bill Greeley's project to get down in detail just what the F.S. thought was needed in every type in the land. It involved, of course, examination of as many private cuttings as possible.

So the three of us took off to get a start, riding the logging trains, staying in some of the foul logging camps that were prevalent, occasionally getting sick on rotten meat, doing lots of legwork and arguing what to do about it. It was a sad

and sorry picture of heedless and cynical irresponsibility and we sure got a permanent mad at the perpetrators.

Believe me, when we got through running and tallying strips on an operation we had the cold and brutal facts. One of our pet hates was "high lead" logging and as we went on we took particular care to get its malign effects nailed down in the arithmetic.

Along the way we hit some National Forest timber sales on which the sweet-sounding "modified lead" system was in use. All you could say for it was that it wasn't quite as bad as high lead. So we started to pick fights with Woodbury, who got pretty resentful at our temerity, but we stayed with our crusade. It was the low tide of decency on N.F. sales.

Very occasionally I'd get to visit my family briefly. You just weren't supposed to run in at government expense when you felt like it. I tried it out on Red and Bob to get us a Model T Ford, which we sure needed, and toward which we offered a couple of hundred bucks out of our very meager travel allotment. It worked, and July 1 Dunc and I proudly took possession of our baby, which had none of the conveniences - starter, battery, steady lights, supplementary gears, foot throttle and such. That we wrangled later. We learned to drive it in the two hot days it took us to reach Quincy over the hair-raising Buck's Ranch road. We got a fine outfit together, and from then on practically never ate a restaurant meal or slept in a hotel, except enroute in the big valley towns.

In those days it was usually a two-day drag from San Francisco to wherever we were headed for in the mountains.

Early Lunc and I faced the problem of two guys living and working together under trying conditions, getting tired of and irritated at each other's foibles and stories, arguing about what to have for breakfast, inevitably heading for a blowup. So we settled on a rigid morning routine. I'd roll out, start the fire, put on the coffee and mix the hotcake batter. Lunc would prepare the rest of our standard breakfast - the ham omelet. So we didn't have to speak till after the second cup of coffee, when we were partly human. Believe me, it helps on a cold morning. We'd firmly tell our occasional visitors to stand aside and keep still while breakfast was doing. We had an invariable rule to do dishes right away, and ditch occasional leftovers. First job in a new camp was a big pot of bayo beans with ham, which thereafter was the center of lunch and dinner. We usually camped close enough to work to come in for a hot lunch and to take care of the notes. Thus we ended six long seasons as friends.

Come late August, 1920, and Lunc and I in our Ford headed for the Shasta to start remeasuring the permanent sample plots at the end of their tenth year. We moved in as close as possible, set up camp, had at it, and then trekked to the next. It was just unexacting and tedious work. We supplemented on mountain quail and gray squirrels, which we found near all our stands. We got as far as the Stanislaus by late October, when a big snowstorm drove us out in a wild and skiddy night drive. My dad came up briefly while we were on the Tahoe plot - he was obviously a very sick man.

Just about the time I got back home at the end of October, 1920, Papa died suddenly and there was the whole business of arrangements, getting from the University a year's salary for Mama's use, storing his large library and other things, settling the estate. The really depressing thing was contemplating the thousands of reference cards he's laboriously accumulated by years of work, and which were to be the basis for a definitive book he had been going to write, but never got started on. His expert colleagues went over it all, and said noone else could do the job. Papa had always lectured and urged me to do what he didn't - write for publication - and this sad experience finished whatever convincing was necessary. My family and I missed him indeed.

As executor I got a modest fee, but enough to make a down payment on the cottage at 1451 Cowper - a big moment in our lives after ten years as tenant, and leaving a large question as to what we'd use for cash in keeping up payments. Lots of things needed doing - glassing in porches to make essential extra bedrooms, repapering and redecorating inside, painting outside, refinishing floors by hand, refinishing our oak furniture - and as fast as we could pinch off a few dollars for material, I tackled these one by one for the next few years, thus occupying my "spare" time, and learning to be a ham handyman the hard way. Meeting the payments and taxes was a perennial crisis, but we had an incentive and made it by an eyelash. Mabel's life was busy and hard.

In January, 1921, Red organized and led a group to get damage data on a big fire of the year before on Red River land

on the Modoc. Old T. B. Walker, bull moose of the light burners, had scornfully refused to spend money on it. So Red, Bill Hodge, Uncle Joe Elliott, Ed Kotok, Dunc Dunning, Supervisor Bill Durbin, and Rangers Ivan Cuff and John Davis and I headed out, John driving the team and sleigh, the rest of us mostly walking to keep warm. Also there was a talkative and profane cook, under whose ministrations we ate our way through a couple of fine, fat, fresh-killed hogs - to Ed's inevitable delight.

It shortly ~~devolved~~ devolved on me to organize and run the party. John, Ivan and I wallowed out and set up a spike camp to cover ~~at~~ a distant segment on the White Horse Mountains, and in due course we wound up and headed for Alturas in a snow-storm, the chief interest being a prompt and radical change of diet. Bill Durbin had his fine team and sled brought to Canby, and away he went with the big boss, Red. The rest of us rode the top of John's slow and ponderous rig, played bridge under improvised shelters, and finally made it to the Niles Hotel, where we demanded the largest Modoc beef steaks - about 2 pounds - available. As we got under full sail in our gluttony, Red looked in, snorted and left. Annie Durbin had given him a real treat - fried pork chops.

Of course I worked up the dope and Ed used the report skilfully to convince the Walkers they had better put up cash to pay for protecting their far flung empire - a real achievement.

Ed K. and I dove seriously into our first big writing job - Forest Fires in California, 1911-1920: An Analytical Study. I'd abstracted the 10,499 fires and most of the other data we needed. One week Ed would come down to our house Mon. A.M. and

we'd work through Friday then go to the office on Saturday. Next week I'd move in on him. There were days on end of arithmetic, getting our many tables laid out and filled in, and getting them to check. When the writing began, we'd wrangle out the general shape of what we wanted to say, then I'd dictate and Ed would push the pencil. It was hard labor, but we were all steamed up about it and had our fun in blasting, arithmetically and in writing, the Headley sinful policies of evil memory. In due course our brain child went in to Washington and was referred to Headley for comment. Of course he refused to admit conclusions that showed him a purblind fool, and wrote so at length and then it all went to no less than the big boss, Greeley. Ed and I got sinful joy and pride and full compensation for our labors from the longhand note on Headley's effusion - "Face the facts. W.B.G." So we got noticed by the all highest as having something to say, and not being polite about it.

I'll have to back up. Ed K. and I had to find a way to apply the sound general principles of fire control organization to individual forests and ranger districts. They weren't going to apply themselves. So we lit on the Shasta, our old stamping ground, and after three hard weeks of trial and error, came up with a pretty good system of analysis by means of a series of maps which showed up the great gaps in lookout and guard coverage which had grown up. Then we got Supervisor Hall to get all his rangers in and we went over the whole thing in detail. Quite a few changes were made because they were evidently needed. Ed and

I took on the job of talking some extra money out of the boss to fill holes that reshuffling didn't get to. Redington and Deering were impressed and we got a mandate to do the same for the other forests, which took several years. Whether this was properly speaking research, I wouldn't know, but we got credit for a fine job of applied research anyway.

During the winter of 1920-21, Dunc and I pretty well shook down the division of responsibilities. His only real interest was silviculture, and he naturally took over the job of working up the remeasurements of the permanent sample plots. My ruling interest was fire, and I took over that. In the field for the next several years, most of our work was in silviculture projects and on them we worked as a two man crew. Dunc didn't care at all for liason work with field people, and that gravitated to me.

Come spring, 1924, and Dunc and I crowded the season to wind up the permanent plot remeasurement before growth started. We got royally stuck in the snow on the Sequoia, but dug out and went on. Ed Munns had gone with the State for a two-year hitch to do a study of private logging practice.

After the plots were done, Dunc and I took up on the minimum requirements field work. We had to find some way to prove that cutting the small diameter trees, essential as seed trees, and the prevailing practice, didn't pay. So we invented and did some moderately sketchy studies of falling, yarding, loading, transporting and sawing costs for logs and trees of different diameters, which happily proved the point. We wangled the loan of an Air Force plane and camera and ^{Dunc} practically stood

on his head to take photos of some of the more horrible examples of private cutting that we knew so well on the ground. I think we bummed the film, too. All good stuff when it came to the final report later.

Along the way, Greeley sent out the call for the service-wide meeting on fire control, to be held at Mather Field in November, and Ed and I were given assignments - which were going to take some work. My jobs were to explain the extoll the fire statistical work, including application to individual units, and to develop some useable system of fire damage valuation. Ed's job was to carry the flag for a Servicewide individual fire report, as complete as ours was, and to sponsor a uniform system of recording and analyzing the reports.

On the damage project I was in trouble and knew it. There was an official system, complicated, unwieldy, unrealistic and unworkable, and everybody ignored it. I thought I had a vague idea for something better, and went over to see my classmate and friend, Don Bruce, professor at University of California Forest School. Don was a brilliant mathematician who had done and was doing original work in forest mensuration, and I had asked and received his help on several projects. We decided my rough idea could be worked out but it was going to take a lot more time than I then had, so I prepared a skeleton sketch of the proposed scheme and let it go at that.

For 1921 was further complicated by the fact that I'd been saddled with the minimum requirements job for the redwood region, which I hadn't even seen, and my Washington bosses,

Greeley, and Clapp, were prodding about it.

So, cutting the suit to fit the cloth, I just wound up the field work on the pine region and talked the amiable Don Bruce into a trip of several weeks in the redwood country. The little old Ford took us into roadheads and then we'd walk or ride the logging trains. Don had already done field work up there, and while we didn't always agree about what to do about the universal devastation and wastage, he sure helped me do a fast job. That wound up the field work for 1921.

Our long-awaited son, Stuart Bevier, Jr., arrived November 12, 1921. I was due to leave for the Mather Field Fire Conference, so my mother came over and took care of the girls till Mabel came home from the hospital. Then she had a real overload in our cottage, but did it as usual.

Mather Field was quite a show, with Greeley presiding during the first of its two busy weeks. The formal report indicates that Ed and I put across our projects. I got saddled with the job of working up a Servicewide damage valuation scheme and that took some time, as will appear. It was the first time I'd made a mild splash on the national scale, and I wouldn't want it understood that I failed to enjoy it.

For the winter campaign 1921-22, Ed and I did the individual analysis of several more forests, always ending up with the whole crew. We got the time schedule for a job bailed down to not much over a week. Redington and Deering pushed us on this job.

Then under Washington pushing, I had to work out the minimum requirements proposals, which I did. When my pine

region dope went in to Washington for review it developed that the proposals differed radically from those for the yellow pine types elsewhere. So I was instructed to get around in the other states with the Experiment Station guys who were doing the job and see what could be done to get all of us together. To jump ahead, during 1922 I made trips with Thornton Munger, Bob Weidman and Gus Pearson, sticking with each till he agreed to go along with me. Among other things, it was a fine chance to see country, problems and people in other regions and rub off a little of the provincialism with which I was supposed to be infected.

The Washington crowd was starting work on what became the Capper Report, and Dunc and I got the job of preparing the material for California. A lot of it was pretty sketchy, but we ground it out.

Ed Kotok and I got a healthy start on our second big writing job on fire - "Hole of Fire" - aimed primarily ~~at~~ at the still-active light-burners and at other people who accepted their glib, specious or false arguments. Actually I'd accumulated a lot of solid stuff and we had a lot of work and fun putting it together.

Dunc and I, for the first time, could see our way clear to start on a yield study of mixed even-aged stands, and got our plan blocked out. So in the spring we started on the young stands around Quincy, and from time to time thereafter did series of plots around Indian Valley, Flea Valley, Woodleaf and in other stands which had come in after the logging of the early mining days. I ceded my rights in the material to Dunc and eventually somebody else fell heir to it at the Experiment Station.

Preparatory to this mixed stand yield study, I had to work out volume tables for second growth sugar pine, douglas and white firs and incense cedar. Rooting around in closed files I found lots of measurements ~~as~~ made by the early day "study" crews, and this happily solved the problem of raw material for the tables. So I plugged along on this job, asking and receiving much help from Don Bruce when I needed it. I just didn't have the type of mind to get much excited about such things and he did.

Dunc and I that summer laid out a couple of new permanent methods of cutting sample plots on the eastern Lassen, to fill an evident hole in the series.

Thus between coordinating the pine minimum requirements, the yield studies, new plots and picking up some additional fire damage data, 1922 was the usual~~ly~~ busy and crowded field season. Occasionally I'd get home briefly, but as Mabel reminds me, I was a highly intermittent papa. She surely carried the load with our four small children.

September, 1922, I got into the office, vacant except for the girls, for lame Lou Barrett, and for logging engineer Jay Price. Redington had just cleaned the place out in responding to an anguished plea for help on a big fire on the Mendocino. In about 15 minutes, another plea came from the Los Padres, which had a mess of its own. So Jay and I got tagged and took the Sunset down that night. Next A.M. we started for the fire which was over on the Cuyama, San Joaquin side of the mountains. All day we bounced over the poor dirt road in sight of the

monumental fire, and at dusk we got to the fire camp, presided over by Ranger Jacinto Reyes, whom Jay and I christened Pancho Villa. The crew was mostly a worthless and unappetizing bunch of Bakersfield pool hall bums. The cooks were a couple of Jacinto's countrymen, also unappetizing. For breakfast they'd half fill a big iron skillet with hog fat, and when it got liquid they'd break in eggs, let the whole mess bubble a while and then ladle out eggs and a dose of grease onto slabs of cold bread. For breakfast there was at least coffee. For lunch there was just a cold and repulsive version of bread, grease and eggs.

There was a spring which, after fishing out dead birds and small mammals, still supported large populations of aquatic life. There was a single poor trail to the huge burn - 115,000 acres finally. Every P.M. the fire would take off for a run of a few miles. At night it would die down, and by early morning only a few short segments of the perimeter would be alive. To fight it aggressively was impossible, and in a couple of days Jay and I evolved a system of taking a small crew of the least worst braves, leaving camp long before daylight and climbing several hours to the live spots which we could identify from camp. Then a short hitch of hot-spotting and the long drag back to camp and another greasy meal. In about a week more we tied up our farflung side and hooked up with the guys who were coming up on the yon side of the mountains.

Jay and I got acquainted, and I got the start of my great respect for his intelligence and resourcefulness on tough fires. What a mess Kelly Canyon fire was! It was my first major fire and first look at Southern California brush fires.

For the 1922-23 winter campaign there was, first of all, a talk before Western Forestry and Conservation Association, a lumberman-dominated outfit, to explain my minimum requirement proposals. It was a cold and unfriendly crowd. They didn't like any part of diameter limit cutting to save a few little seed trees; curbing high lead to save advance reproduction and seed trees; fire organization in camps to prevent the common big and damaging fires on private cutovers. Most of the lumbermen just wanted to be left alone to continue their wicked old ways and practice conservation by making speeches.

In the spring the Association sent its henchman, Norman Jacobson, down to check on the basis for the minimum requirements proposals in pine. They thought I was too harsh on high lead and seed trees. Redington called me in and rather apologetically told me I was to tour big Jake. It sure messed up plans Dunc and I had, but I gulped and went. After shoving his nose into the samples on many operations, Jake didn't have much argument left, and I went back to working with Dunc.

It might be worth saying that in doing the minimum requirements things I didn't think it was necessary to clear, check or discuss with Woodbury or Redington. I suppose it shows how high-handed I was, but it never occurred to me that they could help. Dunc was always unhappy about it all - a minimum level just didn't interest him. He was shooting for some theoretical moon of perfect silviculture and minimum requirements had the modest aim of preventing devastation.

Dunc and I had a project for a new permanent plot at Cow Creek on the Stanislaus, and I took our 8-year-old, Barbara,

along. She and Dunc were buddies, and while he and I worked, she'd play around. Then we trekked over to the old Portola plot on the Plumas where we had eight one-acre reproduction study plots to fence with woven wire. We'd hired a couple of guys to cut and set cedar posts, but the budget couldn't carry the fencing. So Dunc and I labored for days, while Barbara watched us and the chipmunks. The reason for the job was that Dave Rogers violated orders and allowed a band of sheep to trail over our plots periodically. Finally we finished and trailed home in the Ford. Barbara, I think, enjoyed it, though our camp cooking for working men was maybe a little hearty for a young gal. Fortunately, we didn't run into and get tangled in a fire, as sometimes happened in our travels.

That year, Earle Clapp finally got interested in fire research, and picked a brilliant young lad, Harry Gisborne, to undertake such work in the Northern Rockies - they still had an experiment station. Earle told me to go up and help Gis get started, and I put in several interesting weeks with him and others on the Station staff.

In working on our new Stanislaus plot, Dunc and I got pretty stirred up anew over the damage caused by sanctioned "modified lead" logging on National Forest sales, and I dove into a head-on collision with Woodbury, who sure disliked and resented criticism of his domain. I hope it's worth reemphasis that challenge to and criticism of established practices was still sanctioned and expected by bosses, and that I wasn't polite or timorous in doing such things. In later years, Ed Kotok was insistent on the right of criticism as a role of the Station, but

he didn't invent it. During these years Red was very generous in not cramping my style, and never suggested that I had to be polite when somebody or something needed attacking. That made a good environment in which to work.

During these years under Red, I'd be on the program at the annual Supervisors meetings. It was a good chance to carry the torch, especially for the work in fire, and most particularly for more accurate and complete individual fire reports. And good practice in public speaking, on which I indeed needed it. Of course, I reported on other things as well, trying generally to sell the idea that the ~~researchers~~ understood the administrators' problems and were trying to do something practical about them.

During those years, too, I kept getting hard tutelage in the art of technical writing from Doc Meinecke. Usually when I finished a writing job, I was in a glow of self-admiration and was convinced it was hot stuff. How Doc deflated my ego and punctured my toy balloon, kindly but so firmly.

In later years the standard gambit of bosses seeking to beguile me into an extracurricular job was "But you write so easily, Bevier." Pfui, it's the hardest work there is, and I suffered plenty in learning a little bit about it. Nevertheless, as will appear, I often fell for such tripe.

One of the jobs Dunc and I took on was to hunt up the plots of various sorts that had been put in by various young technicals on most of the forests from 1910-13. Then for a decade or so, nothing had been done on them. Some we could get to with our Ford. A few were far away by trail, and one of us

would decoy a ranger to guide and help and get the chore done. None of them had any real value, but we knocked them off one by one and closed the cases, to Woodbury's pleasure. At any rate, it was part of the process of learning country and people. Most of the rangers were well aware of their own lack of knowledge of "forestry", which for them was mostly fire-fighting, and they were getting nothing to help them from the office. Maybe we helped them a little bit to get their eyes open. It was a vicious circle. The job was growing away from them, and they weren't getting the help to keep up.

Sometimes Dunc and I would have a day or so slack, and we'd go poking and exploring into new pieces of country. We might pick up a few yield plots or find some old and forgotten logging area to study. It added interest and knowledge and kept us out of the common pitfall of dashing from one spot job to another, blind to everything along the way. Also we found some nice little fishing spots. A mess of fresh trout was sure a welcome change from our usual diet of ham and beans.

One thing that showed up at Mather Field was that Ed and I were going in one direction on fire research, trying to read experience and translate it into organization, while in the Pacific Northwest researcher Hoffman and administrator Osborne were tying everything into relative humidity. Naturally we clashed, and neither of us would give. Privately, Ed and I agreed that weather conditions were important, and in 1923, when we got around to it, after "Role of Fire" was done, I started getting together day by day Weather Bureau records. Then we compared these with day by day fire behavior, found clear relationships and finally wrote

"Weather Conditions and Forest Fires in Northern California".

It gave a new and specific basis for the Weather Bureau to use for fire weather forecasts, which had been pretty vague.

Greeley finally, in early 1924, called a Madison meeting of the men who had done the minimum requirements jobs and the handful of fire researchers, and for a couple of weeks we thrashed things out. The gem of the affair was a ditty written by Chapler, and sung and danced by him and Ed, with piano accompaniment by me.

"Oh, we are Forest Service men, as anyone can see,
We fight the forest fires wherever they may be.
Now we came here to find out what makes fires burn
and get to hot
And all we hear is this tommyrot, 'It's just humidity'.
The land of the hoof and mouth disease sends men who
shout with glee
'Psychrometers are pretty punk, statistics give us all
our junk'
But the Doctor* says, 'That's all the bunk,
It's just humidity'."

*To wit, J. V. Hoffman.

(And to a slow drag)

So now we're going home again as wise as wise can be,
We'll throw away our shovels and hoes
And follow the fire wherever it goes,
We'll fight it with air, 'cause everyone knows
'It's just humidity'.

This Gridiron Club type of skit, of which I think this was the first, was used on later occasions after heated meetings and was a good thing. Greeley always believed in getting arguments out in the open, and sure encouraged freedom of speech. After listening to and appraising arguments and arguers, he made his own judgements about both and you can see these reflected in later Service history, especially in whether men went ahead or didn't. I sort of suspect I didn't do myself any harm at this very lively affair. Of course I was in on both requirements and fire.

One aftermath of Mather field was a mandate to Ed and me to prepare a glossary of terms used in fire control. To date, everyone had gone his own gait, inventing ideas, concepts and terminology, and it obviously needed straightening out. So we assembled from everywhere all we could get from others, ran in our own ideas and usage, and flogged it out, the first such glossary anywhere. Greeley accepted it with little change, though there was squawking from guys whose stuff we'd ignored. And so it became official. One of the few times I've emulated the late Noah Webster. Believe me, it's a tedious and unglamorous chore.

After that I really went to work on the two requirements bulletins for pine and redwood. I had more than the usual amount of trouble with the editors, with whom I never did get along. To me they were a low and undesirable form of animal life, and I see no need to record their opinions of me. Anyway, after much battling and rewriting, etc., the pine report got finished quite a bit later. The redwood report got held up by Dave Mason, consulting forester, on grounds of personal privilege. He claimed a monopoly on the region and didn't want anybody else telling what

ought to be done. It was years later before my report got cleared and saw the light.

Dunc and I had big and ambitious plans for 1924, but they went glimmering in May when the toughest fire season of them all moved in. Right at the start we got split as Bob Deering dispatched us to different messes. Each mess would last for a week to ten days. Then we'd get back, get ready to start and another call would come and away one or the other would go. I was on at least five of the big ones and a lot of the other guys had the same sort of summer. Noone was immune, and you just didn't argue with Bob. Red had blown up early in the campaign and Bob took over - a real tough job.

When I landed on a fire, I'd get jitneyed out to the headquarters fire camp, get told to take over a side of the fire, get moved over there, and then start in country I didn't know with labor and crew leaders I'd mostly never seen. You just prayed you'd guess right most of the time and go to it. Fortunately I was able to keep away from the headquarters camps where the bosses were, and so I didn't have much trouble from them. I made plans as fast as I could see for myself what the job was and fought the bosses for men, leaders and particularly for grub. If you remember, I believed in feeding working men good, and generally I got good hard working men. Of course there wasn't much time for sleep, usually about three hours a night, and if we got an army blanket apiece we were doing good. So by the end of a hitch you were pretty worn down.

On the Tahoe's Forest Hill fire in July I sure got tangled with Pitch, who was advising the beleaguered Supervisor.

Someone had put in a cumbersome system of supply, which meant that grub would be hauled by my camp at ^KForm's House to G.H.Q. at Westville, then sorted out and in maybe a shift my cook would get his requisition of 24 hours earlier. I had a notable crew of locals, and they were just going to walk away on me if they didn't eat. So one night as the supply truck came grinding up the road, I stopped it and the cook and I tossed off sacks and boxes of ham, bacon, eggs and other good nourishing stuff we needed. The driver said I shouldn't, but I reassured him - I hoped. A little later Pitch came sputtering on the phone to cuss me out on account I upset the system. So I sputtered right back and told him what he could do with his system. That was the first thing.

There were some beef critters the owner hadn't got out of the country. We craved fresh meat, which the system wasn't providing, and anyway the poor critters might get burned up - we thought. So I sent some of the braves out to turn a good one into meat. It would have been alright except one guy got his thumb caught in the bight of the rope when they were snubbing the beast up on a young pine, and the horny skin just got pulled off. I didn't have any medicine kit so I wrapped it up and put him on a truck to go see the compensation doctor in Auburn. It developed that forms had to be filled out, and when the doc asked this guy how it happened, he told him. Then I had to sign the form as officer in charge, and so Pitch got proof I was a cattle-ruttler as well as a disturber of systems. More hot conversation during which I reminded him my lack of system was getting fire put out, while his fine system wasn't.

Then the third thing was that when Bill Gracey came to pay off, I certified about 100 hours straight time for my cook, Bill paid him, and I got him on the first load down the hill and told him to vanish. In my camp there weren't very regular ^fshift hours - more lack of system - and the guy actually had been working most of the time. That was the final straw for Pitch, and as I liked to tell the story later, when he and I were again the best of friends, he was going to fire me right now. But Richard Bigelow, the Supervisor, got Pitch more or less pacified, so I kept my job.

I had 15 or 20 miles of up and down line on this fire, and among other duties I was my own line inspector, and even my stout young legs got just about wore off. It was a couple of thousand vertical feet from top to bottom in that country.

The last chore that summer was on the San Gabriel fire of unhappy memory. Bill Greeley had come out to see things for himself, had taken command away from the Super and put Evan Kelley in as fire boss. So when I landed, Evan gave me written orders to "prepare to backfire the North Fork". It was just after the second breakout of the fire, and the first thing was to corral a panicked retreating mob - the fire had jumped over their heads - and get a pack string going back to pick up the tools and stuff they'd thrown away in the retreat. Then I had a delegation of leading citizens who'd heard of Evan's order and who protested violently against "sacrificing their watershed". I somehow got them out of camp and then I picked Lee Kirby, an awful good man from the Southwest, and we started horseback to get a look at the North Fork and find out where the fire really was.

Well, the fire was miles from where Evan had thought it was, and in due course I quietly abandoned his plan and we kept pushing in on it, working the edge, putting out spots, and eventually I sent a small and select knapsack party to cold trail it up to Twin Peaks and into the rocks. All this took a week or ten days, during which the fire - like all Southern California fires - obligingly lay down and didn't make any big runs. Fortunately, I was far from G.H.Q. and, when I finally reported the job done, no one was disposed to remember that it wasn't according to plan, especially as the plan on the bosses side had notably failed. I'm inclined to think the moral is to get out and see for yourself and then believe what you see.

During that hectic season, Jay Price, Ed Kotok, Paul Pitchlynn and I would see each other occasionally. We were all having the same sorts of experiences, seeing much stupidity, sloppiness and incompetence, and we sure talked about it all. Before season's end, we'd evolved the idea, mechanism and detailed agenda for a board of fire review. First we sold it to Bob, got and incorporated his ideas, and then he planted it on poor Red.

We picked the Shasta, Plumas, Tahoe and Sierra as victims. Each had plenty of messes to review. The fall rains came on October 8, everyone breathed a deep sigh of relief, and the Board took off. Red just couldn't take it for long. The rest of us carried it through. At the end, I got the job of writing the report, which still ought to be required reading. Red used it as a teaching text that winter at Fort Miley meeting of all rangers and supervisors. I missed this to my regret, being marooned in Washington. This was the first formal organized

Board of Review.

It's now three years since Mather Field, and I haven't done the fire damage valuation job. Lots of stewing and worry about it, and lots of good excuses, but that's all. So I wasn't surprised to get orders to come in to Washington, where I guess the brass could keep an eye on me. More important to me was the fact that Don Bruce was now in there as a researcher. I got a card at the Cosmos Club - first of many times - a cubby hole in the grimy old Atlantic Bldg., and dove in. I remember it as a long, arduous and sometimes frustrating job, but by spring I was ready, with Don's help, and faced the top staff with the sharp Greeley presiding and questioning, and got it accepted. It's one of a very few major jobs on which I worked that never got published, why I don't recall. Along the way I fought editors on several publications and finally reached unfriendly agreements.

One little job I got slipped to me was preparing questions for the forthcoming Civil Service exam for Junior Foresters. I remember struggling, but finally doing it acceptably, at least to the examiners. Like various other things, its relation to my research portfolio doesn't leap to the eye.

That winter several guys - Ed Munns, Ward Shepard, Tom Gill, Don Bruce, Bill Sparhawk and I were permanently or temporarily stuck in Washington. I suppose as a gesture of democracy and in the interests of our cultural betterment, all of us were bid to the stuffy Weekly Service Meetings, where the brass solemnly reported on matters great and small in their domains. It was all taken down and sent to "The Field" for its edification.

We were bored as hell, and in the interest of livening things up, Ward and I dove off into an attack on the policies which, we declaimed, had wrecked the district ranger position, the very cornerstone of the Forest Service edifice, and had made of these worthy and humble people mere operation mechanics. The term of course was exaggerated and opprobrious, but like all good tags, was close enough to the truth to hurt. The other lads in our crowd joined happily in.

After the initial shock at our temerity, the brass, ex Greeley, undertook one by one to put us kindly but firmly in our place. One by one we made them look silly and fall silent before the boss. Several of us had had formal debating experience, we had a lot of field knowledge, we had good staff work. Greeley, a notable intercollegiate debater, was a benign and at times twinkling chairman, and I think enjoyed what the young rebels dubbed the "Spring Revolution". It led directly to the Denver Conference on organization that fall.

I like to remember it as an example of Greeley's extreme tolerance of the views of younger men, far below the top hierarchy in rank. The atmosphere of challenge was a real and live thing, even though lesser brass didn't always like it. It made a happy environment in which to work, and an open chance to be heard.

At Earle Clapp's insistence, I came back home after my long sojourn via the Appalachian and Southern Experiment Stations, getting to see guys, projects and country, no doubt to my benefit.

When I got back, Pitch had finally pushed through his idea of a training school for district rangers, assistant rangers and forest staff men. He wanted a small group to advise and

help, and so I found myself with Doc Meinecke and Ed Kotok and Carey Hill on it. We had quite a task. The older heads mostly hadn't much formal education; the incoming juniors nothing else but. Doc and Cary were the fundamentalists for basic science. I was more for stuff they needed directly to do their jobs. We flogged out a reasonable mixture for a six-weeks' course. One week was on fire, and Ed and I divided that, which meant some heavy preparatory work. Believe me, eight hours of lecture a day gets to be a strain on everybody.

This project antedated the Denver Conference, which that fall blessed and sanctified in-service training schools.

I don't know just what research had to do with this committee work, but I was very glad to be asked. At any rate, my interests were far broader than those encompassed by Earle Clapp's vision of his domain. He had a deep mistrust of administrators. I thought they had to be lived with and, if possible, made better men.

The 1925 season was placid and peaceful as far as fire was concerned. That the social prestige of researchers was improved was shown when Dunc and I got a new Dodge coupe with turtleback cut off and a truck body installed. We said farewell to the little old Ford with some nostalgia but no real regrets.

We first moved to the Experiment Station where we'd reestablished resident privileges from Doc, remeasured the Quincy Junction thinning plots, and then did a daily climb up the old chute and remeasured the eight Massack methods of cutting plots. I remember pounding out multitudes of the metal tags for the trees and that had grown into the four inch diameter class and toting

them up the hill.

Then we did a new permanent yield plot on the Tahoe near Goodyear's Bar. When school was out, I took Barbara and Betty in the Dodge and headed for Feather River, while Mabel took Jean and Sonny by train. Dunc and I were doing an experiment in how and to what degree various forms of burning tobacco and matches started fires. We borrowed an Evinrude pump, rigged up a wind machine with stuff from the Quincy dump, and went to it. Unfortunately, the findings failed to confirm the deep convictions of Forest Service pundits that cigarettes were the villain, and so we suppressed the study. Meanwhile, Mabel and the kids enjoyed it. We toured around on short trips, including a productive fishing trip to Silver Lake, where Barbara walked on a rusty nail. It's a wonder she didn't have tetanus. After I prodded around, she did have jumping pains. I found the right nerve and sat up and pressed on it all night. Then she recovered. Finally we divided up and trekked home.

Then Dunc and I started a project growing out of the second growth yield studies, to work out the capture of ground space by roots in closed stands. We picked the pine stands near Nevada City, and stayed with my old friend, Bill Gracey, whose family was away. Next year Dunc took over the incomplete job.

By then it was late August, and we started the rounds of the old permanent sample plots. By now practically each tagged tree was an old friend. Along the way, Red sent word that I was to go with him to the November conference in Denver - I always

thought as a reward for my part in the Spring Revolution. Also he wanted me to work up something original - and unspecified - for him. So I got diaries from rangers on heavy fire districts and did an analysis, which showed that their years were dominated to the extent of 75% by fire and collateral work on improvements. Red used it impressively as his own.

As October came and we were ready for the big remeasurement job on the Stanislaus, Dunc just took a powder, though it was his baby. ~~I~~^{He} was mad enough to go ahead, got helpers out of the Supervisor, and did the job.

Then home briefly, and on to two weeks of Denver, where I did most of Red's work, and with several of the other young rebels who were there, had fun and got some of our ideas in the reports.

Earl Loveridge, a bright ^{and pushing} young fellow from the Southwest, was there, and he decoyed me into an analysis of the Coconino fire problem in the mode Ed and I had worked out at home. It was an interesting job with the usual sort of results. I got it done barely in time to get back home for the Big Game at Stanford, the one in which the great Ernie Nevers led his troops to a smashing victory over Cal, the first in seven long years of postwar trying. All those years, either with Mabel or alone, I'd sat and suffered, and the long delayed turning of the tide made a grand afternoon.

While I was at Denver, Red had asked me how I would like to be District Forester, saying he was going into Washington in the spring. I just didn't believe him and went my way as a researcher. It looked at long last as if Earle Clapp would

succeed in wangling an appropriation for an experiment station in California, and as far as I had ambition and self-assurance, that was the job I wanted.

Then for a couple of months nothing happened. Ed and I dove off on our analysis of forest types and fires, for which we'd prepared by relating each of the 10,499 fires to the basic type of origin. I was working one day over at his house when two wires were relayed. One, from Greeley, said how would I like to be District Forester. The other, from Clapp, said I should understand I'd be the director of the now assured Experiment Station. What a pickle!

I conferred with Doc M., who probably had the best idea of all - that if I thought I could get facts, as opposed to general judgement, obtained and used in the managing of the National Forests, then try it. I conferred with my wife, who leaned strongly toward continuing as a researcher, for which I had some preparation. I conferred with Ed, who was vocal and explicit on the areas of the National Forest job on which I was in a state of pristine ignorance.

For the rest, I kept my mouth shut after I'd decided to be a sucker and try the District Forester job. The good old Forest Service grapevine was working, and several other guys considered themselves as leading candidates.

If it's necessary to have good reasons, mine would include just plain curiosity, a fear I might miss a good show, a belief, or at least a hope, that I could do something about the unsolved fire problem; about building up the quality of officers;

and about increasing National Forest ownership through exchanges. I don't remember worrying too much about my ignorances, having enough assurance to think I could learn what I had to. I did have some questions about how I'd be accepted by the gang, particularly a few old head A.R.F's and Supervisors. I made a bet and resolve with myself that I'd continue doing personal professional work and writing, which was very important to me.

Eventually the announcement was made, effective March 19, 1926, and I had a lot of fun to myself watching the reactions, varying from enthusiasm from some of my young and peppy friends to different degrees of foreboding and horror from some others.

Meanwhile I'd insisted on going in to Washington to wind up several manuscripts that were the mill. With my improved status, I could be and was more lordly with editors and reviewers than in the recent past, and I definitely enjoyed it.

Naturally I went in humbly to see Greeley for instructions and advice. Bill said, "Bevier, if you can get on top of the fire problem, I'll be satisfied." So that was my briefing, and I guess historical judgement would be that it stuck.

Also from my friend, Herbert Smith, I got the story of how it had happened to me. Col. Bill called a staff huddle and said, "Gentlemen, we have to choose a successor to Paul Redington, who is coming in here. Please give me your ideas." Whereupon, various eminents made fervent nominating speeches on behalf of their opposite numbers in the California District, and not including me. Bill listened attentively, as was his wont, and as discussion ran down, he reared back. "Gentlemen, your council

has been most helpful. I have decided to appoint Bevier Show." Period, and the lads filed out. There was a guy who was boss - the last the Forest Service had.

Actually, I was in Washington on coronation day. When I got back a bit later, I slid as quietly and unobtrusively as possible into the throne and began the process - which continued for over 20 years - of trying to think and act like a boss. Which, of course, is a separate story, and one that at the moment I'm far from sure I know how to tell. For, as my cherished friend, Dr. Homer LeRoy Shantz, says "On that day I became a public figure."

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Trying to Learn a New Job - 1926-1929

The first thing that happened on my first morning as District Forester was that Anne Marshall, the personable girl who presided over the reception desk and ran the telephone exchange, bounced in and said, "Mr. Smith to see you". Mr. Smith followed, and registered surprise and a distinct lack of pleasure. So did I. He was the Dick Smith of Stillwater Land and Cattle Co., an ancient enemy whose monument was the vast brushfields of Squaw Creek (Shasta) caused by his pre- and post-National Forest fires set as the stock went out in the fall. The Forest Service had finally injunctioned him out a year or so earlier. I had been familiar with his attitudes and actions since my early Shasta days.

Without a handshake, Dick said, "I don't suppose there's any chance you'll let me back in the Creek; I can lease the S.P. land." I said, "Not a damn bit, Dick. Goodbye." He turned and left, and I decided maybe the D.F. did have some powers. I liked that and went down to tell Bob Deering and Jesse Nelson. I guess protocol required that I should have conferred with them first. They thought so.

I'd better tell about the Ferry Building offices and my headquarters gang. The main office on the mezzanine was basically a long barn, perhaps 30'x150'. At the front end was the partitioned in stockroom; then came the reception desk with the fiscal people sitting in each others' laps on the Market Street side; then on the same side the ladies' rest room, my 10x12 office, and Solicitor Harry Dechant's similar office,

all thinly partitioned one from the other and from the main bowling alley, which here began. The Silviculture (now Timber Management), Grazing (now Range and Wildlife Management), Lands (now Recreation and Lands), Public Relations (now Information and Education), Operation (which then included the present Fire Control, Personnel Management, Minor Roads and Trails, State and Private Forestry) and finally Forest Products and Research (now Experiment Station). Small crowds were variously spotted for the next 75 or 80 feet. Then on one side were the gloomy conference room and gents toilet and on the other, Doc Meinecke's Forest Pathology suite, all partitioned.

There was an inter-com system, but it wasn't really needed when such as Lou Barrett, Ed Kotok and Bob Deering raised their voices. On the Market Street side, several streetcars a minute squealed around the sharp turn to start the out trip. On the bay side, a ferry every few minutes tooted its resounding horn and bumped and ground along the piles as it arrived or departed. The engineering crowd was down on the main floor next the ferries. The rest of us got both the ferries and streetcars. Altogether it was a hell of a place to work. Eventually you had to learn to insulate your nerves as well as possible against the constant pound of noise, and to raise your voice to be heard. Even so, there was a vast toll of nervous energy just to exist.

Of my Assistant District Foresters, lame Lou Barrett in Lands and Jess Nelson in Grazing had come in during the General Land Office days before there was a Forest Service and, being

good and honest men, had survived the purges of the early Forest Service days, 1905-10; dapper Wallace Hutchinson in Public Relations had started fresh out of Yale Forest School in the Philippine Forest Service in 1903; Truman Woodbury had started out of Yale in the Forest Service in 1905 and had been in charge of Silviculture, which he still was, when I started in 1910; Bob Deering out of Minnesota Forest School in Operation was a contemporary, having started his Forest Service career in the south ^{west} in 1910; shrewd Irisher Frank Bonner in Engineering was also approximately contemporary.

This was a bunch of established veterans. Each of these men had built up his domain with its own zealously-defended boundaries, its rituals and procedures, its own demands on field officers. I thought what each most wanted from the titular boss was non-interference, automatic approval of actions taken on proposed ^{als} and preferential support when allotments were to be made. All perfectly natural.

Bob Deering, by the very spread of his portfolio, came nearer than anybody else to being a generalist, touching the field job in so many places. Since he was financial manager, he had a theoretical chance to favor his own portfolio jobs such as fire, and his peers were alertly aware of this. Lou Barrett, hampered by his lameness, could do only part of the field inspection job. He was the most generous of all in taking the unglamorous Acting District Forester assignments.

Then there were lesser lights, particularly Paul Pitchlynn, general inspector, dean of the Feather River School and de facto head of the dimly emerging activity of creative personnel

management, as contrasted with mere paper-shuffling and rituals. Of Ed Kotok (Fire Control) you've heard considerable. Of the able and affable chief Logging Engineer, Jay Price, Cal engineer, whose eyes were straying to the troubled field of fire control, you will hear much more.

It was expected and verified that each of these men, in his own way, undertook to sell the new D.F. a bill of goods, involving field inspection of problems or of choice examples of the particular Division's work. The most persuasive voice turned out to be that of Ed Kotok, whose bill of goods was Southern California, where my level of ignorance was high. I made vague and undated promises to the rest to get out and pay attention to their domains later. What was really worrying me was that we were in for another of those fire seasons. There had already been a sizeable fire in the ancient Sisson brush-field (Shasta), and the word from Supervisors was foreboding.

I took over the big Buick touring car and Ed and I started out. One main dish was to meet with the stalwart citizen leaders in Los Angeles - George Clements, Herb Gilman, Harvey Bissell, Harold Cruzan, Bill Rosecrans - and try to establish the entente cordiale. They hadn't cared much for Red, and George Cecil (Supervisor) and Ed gave me earnest pep talks about how to act. Our friends gave me a dinner, talked straight to me, and I tried to do the same. I thought they accepted me as a guy they could talk to and who would at least try. Fortunately, I'd met several of them on the 1924 San Gabriel fire.

Then there was a big campout of Co. and Forest Service people and leading citizens at an inaccessible spot called

Atmore Meadows on the back side of the mountains. The afternoon we all walked in it started to rain - as a Mexican packer said, "Not much but all the time". After a big dinner, the crowd assembled in the wet open, and Cruzan introduced me. Somehow it reminded him of about eight dirty stories, which he told well, and which the gang liked. I started in on my no doubt dull and sober talk, and a sudden burst of rain sent the crowd scattering for shelter - there were a few big and crowded tents. Thenⁿ it let up, and I tried again, and again the rain hit. Finally, after a couple more tries, it just settled down to rain and we all gave up. I had a corner and a couple of blankets in one big tent, and Curly Groninger and Lew Carrigan ran a contest most of the night - each reeling off fifty dirty stories, each getting more and more so. It sure was one of my least impressive public appearances, but at least I met a lot of the guys who were doing the job. Next A.M. we walked wetly out to Palmdale for breakfast.

Then we sat for a day in George Cecil's ranger meeting, where each man had been given a big fire problem to work out and to put up his solution before his peers. Some had really worked at it - men like Art Shea, Hap Mueller and Nelse Petersen - and others tried to bluff and got nailed to the cross by their peers and bosses. It sure separated the sheep from the goats, the men from the boys.

Then I left Ed and drove on down to San Bernardino. The Supervisor, Gus Boulden, was gunning for a couple of moderately worthless rangers - Bert Switzer and Bud Hayden - he's inherited.

All Gus wanted from me was assurance of backing, which he got after spreading out his convincing cases. Then we drove out, cornered the guys separately, and Gus gave them the "resign or answer charges looking to dismissal" routine, and I sat by and scowled at them. So they signed the forms Gus had brought along and that was that. Imagine such arbitrary, high-handed procedures today, ignoring the rights and feelings of employees, who probably are just misunderstood. In due course, the actions were reported through channels.

I met the citizen stalwarts - Bill Starke, Doc Bayless, Francis Cuttle, Willard Smith, C. M. Brown - and I think we liked each other. Gus toured me at a fast clip for a few days, and I drove on to San Diego, the Cleveland and Joe Elliott.

Joe had been a Supervisor for only a year and was floundering around trying to figure out how a Supervisor acted. I was having the same troubles in my new job, and I felt more at ease with him than with seasoned old heads Cecil and Boulden. Joe and I have laughed since about our early struggles. I think maybe we helped each other to start growing up. More fast touring to see lookouts, a 1925 burn, ranger stations and such, while Joe fervently extolled the many new things he wanted to build right away. I sympathized and promised nothing. Bob Deering had obtained a willing promise that I wouldn't go around making verbal commitments to Supervisors that would cost money, and then dump them in Bob's lap to redeem. Red had done so, being a good fellow and leaving Bob in pickles and in a temper. Anyway Joe, then and later, worked vigorously at promoting things his active and creative imagination saw to do.

Then to Santa Barbara where Bill Mendenhall, another young fellow in his first and recent Supervisor job, was trying to apply the "head ranger" theory of the Supervisor's job, as he'd learned it on the Angeles from Rush Charlton, to the vast and inaccessible Los Padres. I think I told him it couldn't possibly work. Then I tried to get him to go after Jacinto Reyes on the Cuyama Ranger District, in whom I had a touching lack of confidence after the Kelly Canyon mess of 1922. But Bill didn't like rough action with people, and I lost that one, not yet feeling enough muscle to get tough.

By the time I got back to San Francisco, my insistent recommendation that Ed Kotok be Director of the new Experiment Station had been accepted by Greeley, and Earle Clapp was out to shop around with Ed for the best deal on headquarters. They got good propositions from both Cal and Stanford. Pretty soon Greeley showed up, and I at least got an open chance to plug for my Alma Mater, but Bill, a loyal son of Cal, followed Earle's and Ed's idea, and Cal it was. So I had no more fire control officer and fire trouble was building up. Bob and I were just going to have to eat it.

One general question that had to be decided was about closures and other special fire prevention measures. The main conclusion about the general closures of 1924 was that they were highly unpopular, generally unenforceable due to many routes of access, and largely ineffective due to the abundant private land everywhere to which people had legal rights of access. So I decided against them, though later in the year Greeley pushed me hard to set them up, and several big lumber companies

wanted them. We put in several special measures on various forests - registration at forest boundaries; no smoking except in camp, in specified safe places and above 7500 feet elevation; shovel and axe for every car and pack train; camping only at prepared campgrounds; special letters to deer hunters; special forest officer patrol to hunter camps. Hutch was doing his best with publicity, special signing by Shell, and so on.

By July, Shasta Supervisor Tom Jones was hollering about a runaway railroad fire situation along the S. P. Sacramento Canyon line and on the main line relocation construction from Weed to Klamath Falls. So Bob and I rolled up. The local Division officers would have cleared right of way and put on patrols after trains, but the high brass wouldn't give the money. So we solved that one by instructing embattled District Ranger Les Solaro to grab railroad gangs on every fire that started within 200 feet of the right of way and keep them on till the fire was out. On the construction work I told him to arrest the operator of every unscreened piece of equipment and bring him to the Justice Court in Mt. Shasta where former District Ranger Lou Lorenzen could be counted on, as J.P., to enforce the law.

By the time Bob and I got back to San Francisco, the cold-blooded Jew, vice-president Breitweiser, of S.P. lines, and rough and mean Kirkbride, Chief of Maintenance of Way, were screaming that we were ruining their railroad. So Bob and I went over to their swanky offices and told them the facts of life and stood pat. They stormed and threatened political reprisals and I told them to go to it. They didn't.

The upshot was that they made an enforced contribution of about \$90,000 for suppressing their own fires, right of way deteriorated, and the construction lagged. Bob and I got sinful pleasure when next year they practically fawned on us to tell them what we wanted done. If you can't avoid a fight, play it to win.

About then Greeley showed up to go on a pack trip with a big shot coordinating committee he'd promoted to examine a National Forest area that the pushing and unscrupulous Steve Mather was trying to steal for one of his National Parks. I was supposed to go, but Bill and I readily agreed my home work came first. So I drove him the long drag to Wawona where the party was to take off, spent an evening making a list of eminent people to be invited to a public hearing after the trip, and headed back.

Meanwhile a big lightning storm had spattered over 250 fires in the north, concentrated on the Klamath, Trinity and Shasta. In a couple of days, the major residual messes could be spotted on the Klamath and Trinity as each A.M. a telegram or telephone call would chirp a not-to-be believed promise, "Control expected tomorrow".

So again Bob and I took off, up the Coast (101) this time. The second P.M. we met Trinity Supervisor Hale Mace at the Lower Trinity Ranger Station, where Ranger George Schroeder was just controlling a hundred acre fire near his station. It developed that the fire had started from fuse used by George in blasting a hole for a telephone pole. So I told him to send in suppression costs (about \$150) as his personal contribution to the U. S. Depository. Mace wanted to argue, but I was mad and

had my neck bowed over such stupidity. There were several big fires going in the New River drainage. A District Ranger was in there, but Mace wasn't, hadn't been and had no plan to. So I phoned Deputy Frank Price, capable ex-Sierra ranger, who was chewing his nails at Weaverville headquarters, and told him to get in with all the help he could rustle and take over command. He did, and eventually corralled the fires.

Next day was the Sabbath, and Bob, Mace and I landed at Hayfork Ranger Station about noon. We were about to sit down to a fine fried chicken dinner, prepared by Ranger Harry Everest's nice wife, when a large black smoke boiled up a piece back of the Station, and we took off. Local ranchers and such were getting there as we did, and Harry grabbed them all and took off to attempt the silly and impossible task of ~~xxxxx~~ controlling the head of the rolling crown fire in the dense second growth pine. That left Bob, Mace, contract pilot Red Andert and myself. I took Mace as my crew on the left flank, Bob took Red on the right, and starting from a common point at the heel we proceeded. Loud shouts from the front showed periodic heroic retreats. So we plugged ahead, making sure of our lines, and by late P.M., as the fire had crossed a low ridge and dropped down from the crowns, we joined up and drove the golden spike, except for mop up and patrol. We finally got our chicken dinner, just a little bit sunburned and flat, but it sure tasted good. It was one of many fires on which the lesson was to start work at the heel with whatever you had, plug along, make sure your back line held, and eventually the head would drop down and you'd get her.

Next day we headed for Klamath headquarters at Yreka, and stopped to check the Shasta, which had eaten up its dose of lightning fires and was pushing the railroad fire project as agreed, and ended up late at Yreka. While we'd been on the Trinity, some small and innocuous lightning starts, untended, had blown up and the valuable Pickering Lumber Co. holdings of pine ^{on} Bogus Mt. had been destroyed. So Bob and I first dug into "what happen". The District Ranger, one Simpson, had been fiddling with a trail, though the fires had been reported, and the guards he'd sent out had got lost, failed to find the little fires, and come back home. The Supervision, in the office, had been fussing about several already big fires down river and trusted the Ranger. Bob and I went out to the belated fire camp to assure ourselves that work was finally being done. Simpson at least didn't lie about his lamentable inactions.

Another contract plane was resident, piloted by the famous Ernie Smith - the first San Francisco to Hawaii solo flier. Ernie liked to take up some forest officer, already scared, in his open two seater De Haviland, and then roll and dive the poor guy till he got good and sick. Everybody agreed I should take the next flight with the playful Ernie. So I did, telling him privately and earnestly that I'd break his damn neck if he tried any tricks with me.

The passenger had the worst of it anyway, sitting in the rear seat, with gas fumes bathing him and splatters of oil flying over him. When you wanted to address the pilot, you passed up a note and vice versa - the noise was really bad.

Ernie headed over the mountain, across Scott Valley, more mountains, Mary Elaine Lookout, over the smoke-filled New River, where it looked as though Frank Price was getting some fire out. Then we crossed mountains and over Orleans District, where a big fire had lots of open line, up river to Happy Camp district where Ernie tilted the plane gently so I could see more open line on another big one, then up toward the main Eiskiyous and, after looping the Bogus fire, which was quiet, back to Montague Airport. During the four hour flight, Ernie would head for every lookout near our path, dive at it from high up, and as the observer came out with his mouth open to gawk, Ernie would toss off a bundle of newspapers, and pull the nose up just as the updraft hit us. Then we'd bounce a piece, straighten out, and Ernie would look around hopefully. Fortunately I ended with all I started with.

Clearly it was all a bad mess, and I kicked Douthitt hard to import labor^y from the coast and elsewhere and quit toying around with the relative handfuls of locals, as was Klamath practice. That always meant trailing big fires for weeks, accepting unnecessary burned area, and costing more in the end than aggressive firefighting. Douthitt was sullen and resentful, but obeyed my humorless orders. Bob and I, as on the Trinity, went away with an agreed on ~~xxxxxx~~ list of people to be retired to private life, come the fall rains.

During this trip I did some heavy wondering to myself whether my first year as District Forester would be my last, and how it would be to move to Berkeley and go to work under Ed. I sure couldn't set up much claim to be carrying out Bill Greeley's

mandate to "get on top of the fire problem". Aside from personal angles, it was plain depressing to see unadulterated stupidity and incompetence that were so damaging to the forest estate. And, when Bob and I would be sunk in our own thoughts, I pondered over what could be done to get a really able and competent bunch of supervisors and rangers. Just firing, demoting or transferring the worst ones wasn't good enough, nor was putting in as replacements the same kind of men as those replaced. Those were the immediate alternatives. Barely a handful of young technicals had been brought in during the past decade, and only two of them looked to have any hope as supervisor. Rangers still came from guards, though we had started getting young technicals.

We dashed back in time for me to set up the public hearing on National Park extension, which I remember chiefly for the uninhibited and impolite objections of my old friend, Ernest Ludley of Stanford, Yale and early Forest Service days, and now a rancher near Exeter. There were other object^{ors}~~ives~~; Steve Mather got red in the face and Bill Greeley had a good time asking questions to bring out the worst from such witnesses. Bill left without demoting me, and I went back to fire.

Early deer season in the north Coast Ranges was opening. With Jesse Nelson's help, I'd blackmailed maybe \$3,000 out of hunter organizations to put on extra registrars and patrolmen, using a thinly veiled threat to close her up otherwise. But there were several opening day fires, one was getting big, and I started up, alone this time.

I got Mendocino Supervisor John Coffman, friend of Yale and Shasta days, and we went over to the main fire camp. Moore

seemed to be around, and just as we got there, a lively cooking fire was getting ready to take off into the brush. I demanded to know who was in charge, and when the flustered John found out the name of the guard, I said, "Fire him, John".

Then we drove to a lookout where the man was rubbing his hands and chuckling how fine it was to have this fire in the south slope brushfield we sat over. Again I said, "John, fire him". John said, "Why then we won't have anyone here", and I was firm he had no one now but a disloyal so and so. Again I was mad and disgusted and got my way. I was darn sure the word about these and other prompt actions would spread over the Forest Service grapevine and that a lot of guys would get the idea.

About the time I got back, a deputation of the girls, headed by the grim and massive Chrissie Decker, called to complain that one of the men persisted in pawing his stone and she didn't like it though, as she said, she might have if it had been someone else. So I appointed the girls as a committee, with Chrissie as chairman, to report direct to me any further complaints about working conditions. Nothing ever happened, but I'm sure they all felt important, and shortly I had a chance to transfer the guy and took it. I told them they'd be doing me a big favor if they could get the girls to tone down their voices in the rest room while they were telling about last night's date or the latest snappy story. That one didn't really work.

I think I made quick trips to the Plumas and Sierra, primarily to pay attention to the old head supervisors Dave Rogers and Morris Benedict, who were unchallenged leaders of the supervisor gang.

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Come early October, the second session of the ranger school took off at Feather River. I went up to give the opening indoctrination lecture to the pedagogically queer mixture of uneducated old head rangers and of educated inexperienced young technicals. But the unorthodox system worked pretty well. Later Ed and I divided the solid week of work on fire control, as we continued to do for some years.

Finally it rained and we got going ~~mm~~ on the test of big machinery to build simple fire roads cheap and fast - an urgent necessity. Big and loveable Chester Jordan, then my minor road man, had decoyed Caterpillar Tractor and Russel Grader Companies into providing their big machines and operators free for the tests in the Siason brushfield. Ed Kotok, Bob Deering, Jay Price, Chester and I, with artist Paul Fair along to take pictures, went up. The potent monsters really did the trick, and all of us went around with big grins and visions of thousands of miles of fire roads to conquer the great roadless areas of ~~the~~ high fire hazard. But we still didn't know how the rig would work on steep slopes. Later during the winter we tried that one on the Monterey Division and found that 50% sideslope was the safe maximum. Anyway, we bought the combination and assigned it to the Shasta, and started stewing about some way to get the blade in front of the power. During the winter we found that mechanic Earl Hall had an idea, so we gave him a few thousand dollars to work with and he came up with the epic invention of the trailbuilder, which was to revolutionize things.

Jay Price was along because he'd finally agreed to take the fire control job. I assured him that, in due course, we'd

talk about making it a full-fledged Division. I was happy and relieved. I'd been short changing everything but fire, and that just wasn't doing the job.

Then there were several of the crop of annual meetings to attend and talk to - State Gamber, State Fish and Game crowd, Woolgrowers, Cattlemen, worth doing, but chores just the same.

And in November Ed, Jay, Bob, Pitch and I, as the Board of Review, lit on the Trinity, Pitch being on because there was some hatchet work to do on incompetents, and I wanted him to know and feel the need for it. Also along as a member was Supervisor Bill Durbin, the real "character" in that crowd, and a wise, sound and firm man. I don't remember a more depressing experience than the two or three days' heading in ghastly detail the story of incompetence which Bob and I had already in broad outline. One evening in my room in the New York House I asked the bunch despairingly, "What would you do about it?" Bill, gurgling and dribbling over his cud of tobacco, his face flushed with righteous wrath, spoke up - "By jing, I'd fire the whole lot of them". We didn't go quite that far, but later Pitch worked out three District Rangers, we transferred another to a clerk job, and with Bob's help I looked Supervisor Mace in the eye and told him he was now a deputy supervisor. Of course, he didn't like it, and I hated such unpleasant tasks, but it had to be done. Frank Price, about the only bright spot in the sorry mess, went in as Supervisor, though his ceiling wasn't high, but there was just no field of choice.

Then on to Yreka and the Klamath, where the detail story was almost as bad, though with a few flashes of hope. Pitch got

two District Rangers to work out, and on a hairline decision, the Supervisor remained, with a pretty stern warning.

The creative thing that came from this session was the formulation and announcement of the doctrine of overnight control of fires - that is, hit them hard and fast and don't accept long campaigns. Probably all of us had a hand in it. Certainly it was a major step in fire control doctrine. Others claimed it later.

It took some figuring to mesh the football season and the sessions. All of us except Bill were ardent fans. We did it by driving in my big Buick on Sunday and back in on Friday night or Saturday A.M. Bill, after listening to our chatter, decided he now understood what a "quarter" was. We covered the Sequoia and Stanislaus, neither good but not hopeless. Got back in time for Mabel and me to take in that pleasant Big Game in Berkeley where "Tricky Dick" Hyland went 55 yards on a Pop Warner reverse on the first play for Stanford's first score, and the team kept on making more.

I'll have to back up. With much improved financial status and more to come, Mabel and I decided in June to sell our badly crowded bungalow and get a bigger house. She did practically all the work of negotiating and looking, finally making a modest profit on 1451 Cowper and settling on 376 Addison as the best immediate bet, but with the idea of getting out of it in a few years. In between trips I signed papers as instructed, took a quick look at the new home - which was going to need lots of work inside and out - did a quick paint job on the old place over

July 4, and left her with the problem of moving. Getting in late one night, I gaily pounded on the front door at 1451, to find out I didn't live there any more. Mabel was sure the supervisor of moving in our family.

Then began the continuing process of buying needed furnishings. We were steady installment plan customers of Montgomery Ward and Sears Roebuck and local stores. But compared to our really poverty-stricken days, things were pretty good.

Along the way, Dechent, Nelson and Deering convinced me that I should summon the ^{asco} Rosasco brothers, preference grazing permittees on the Stanislaus, to a formal hearing on charges that they had violated their application and permit by failure "to prevent and suppress forest fires". There was indeed evidence they had set fire as the stock went out in the fall. Our idea was that even when, after long delay, such people were found guilty by the courts and fined or even imprisoned, we still would have them as permittees, and that was exactly what we didn't want.

So I summoned; the hearing was held with pomp, my secretary, Marie Merrell, and another girl taking it verbatim; they heard our witnesses and questioned them; we questioned them. Happily they lied and we caught them.

So I cancelled their preference for cause and they appealed to the Chief, Greeley. More about that later.

Then there was an anguished and angry appeal from a resort-owning couple on the Eldorado. Supervisor Ed Smith had abruptly cancelled them out without warning on charges of

peddling liquor - this was during "prohibition". They claimed prejudice, arbitrary and confiscatory action. With some doubt I sustained Ed. He stood essentially on personal privilege - if I reversed him, he'd lose prestige and authority. I fell for it, being overly impressed with the need to stand back of my people through thick and thin. They appealed.

Then there was a dilly from the Angeles. One of the little colleges at the base of the mountains - Pomona I think - had installed a big "P" in the brush back of the campus, and George Cecil ordered them to remove it and restore the brush, claiming it damaged the watershed and was unsightly anyway. We were in the throes of the campaign to abolish advertising signs, electioneering posters and such from National Forest land, so I upheld George. It sure hurt the college people's feelings to be classed as advertisers along with the candidates for Sheriff and Campbell's Soups.

I hadn't even heard of these last two till Lou Barrett draped them firmly around my neck. So I started to learn the hard and practical way about appgals. Greeley in due course sent word he'd be out in the spring and would deal personally with the appeals. And I started to sweat.

December was a time when everybody was taking annual leave and the pace slowed down. It gave me a chance to get started on some of the badly needed work jobs, inside and out, on our new home.

Then there was the Christmas party, a fine institution started by Red. A group of the office people did all the work; everybody, old and young, turned out; Ed Kotek was a bouncy Santa

and the kids loved him; we all saw old friends and gabbled happily and had a grand good time. I set up the lunch counter for my brood in my office and rustled trayfuls of food for the hungry horde, as did Harry Dechant for his next door. His five and my four made a notable dent in the grub supply. It was the one day a year when the great open spaces of the office fitted the occasion.

Then there was family Christmas in our new home. I think Mabel's and my mothers, my oldest sister Esther and her four, the Kotoks and their two, were added to the six of us for turkey dinner. It was a noisy and hungry gang and I got to eat after the second round.

In January, 1927, I could finally get started to pay more than token attention to things other than fire. There were many documents to study, people to listen to and question, visitors to meet and all the rest. I tried taking a bulging brief case home for a night shift, but soon gave it up. I just didn't have much energy left by that time.

The whole question of work habits was sitting heavy on my neck. Under Red, quite an array of things had become established rituals, and as far as I was concerned, many had the effect of cramping my freedom of action or of using up time that I thought could be spent to better effect.

For one thing, there was a weekly service meeting in the boss' office at which each chief or his standin reported on matters great and small. It wasn't a forum for debating unsettled questions, and mostly I thought it was a cumbersome device for keeping in touch with what was going on. Some of my old heads seemed frankly bored and itching to get back to

their desks. If the boss wasn't there, it was a pretty poor show. So I just let the ritual slide into oblivion.

My own problem of keeping in touch with actions could be handled by expanding the practice of routing papers to my desk on the motion of the originator. There was, too, an expanded practice of routing papers to other offices which should know of the action. When I was in, I tried to keep an open door so there would be minimum fuss about seeing the boss. Red had always sent his zippy blonde secretary, Marie Merrell, to summon people to the presence, and personally I didn't like it, as I suspected others did not. So I started giving them the courtesy of a direct call on the intercom, or a trip to the guy's desk to ask him, if convenient.

Each winter a detailed field schedule for the whole office crew was worked out, specifying who would be on what forest on what dates, and Red was on it. I was clear that my life wasn't predictable and I hurt Bob's feelings by firmly keeping my name off. Instead I kept a list of things I had to do and another of those I ought to do, the best time for them and the other people concerned. It wasn't a ^anet or impressive system, but I got a pretty good batting average out of it. I couldn't see my job as involving routine general inspections, such as Red had done. It looked as though trouble shooting, field inspection of things in the debate state, seeing unfamiliar country and its problems, getting out with and appraising both my field and headquarters people, learning how my top people and I differed or agreed when we saw the same thing, would more than take up

the time I could salvage for genuine field work. How right I was. At the start, I didn't have more than a vague ideas about personal projects and leadership/in writing and in working with Ed on fire research. But I was determined to continue professional writing in some way or other.

As Red left, he'd pushed me into membership in various clubs. Two were primarily social, involving long lunch hours. At the Transportation Club you gambled with dominoes and ate too much. At the Commercial Club you gambled at bridge and ate too much. I didn't have any uncommitted money for gambling; a heavy lunch just laid me low and only the body was there in the P.M.; an hour and a half for lunch took too big a bite out of the day. So after token appearances I retired from both with thanks.

Then there were the Commonwealth Club and the California Academy of Sciences, in both of which fine institutions Red had been active. I tried for a while but long lunch meetings and fairly frequent night meetings used up time and the latter left me definitely sub the next day. So I slid out of active participation. Trying to learn and do my new job was more than a full time project. That left the local section of the Society of American Foresters as the only extra-curricular thing I kept active on.

Red had kept a detailed diary with, I think, the idea of using it in writing his memoirs. I'd gently slid out of keeping the required official diary a decade earlier, and saw no reason to reform. Marie was in favor of my neglect; Red's

diary had been a perennial chore.

There had been an annual Supervisor's meeting, which gave them an appreciated chance to get together, but which as official occasion I thought had become rather stereotyped and lacking in substance. I didn't have any great and burning message and there was little new around the shop, so I simplified life by dropping the meeting for several years.

Red had gone pretty strong on formal typed memos in giving decisions or comments. I thought a scribbled note would do as well, except in making a pretty looking file, so that's how I started to do it. By the time I left the job, there must have been thousands of them.

I hope all this doesn't sound as if I was out to do a "new broom sweeping clean" job. All I was after was to get things as simple and ^Uinformalized as possible and thereby save time, effort, and some freedom for myself. Some people love form and ritual and some don't. I'm among the latter.

Some of the inherited things I kept. One was the practice of always having an Acting, even when I was in. He signed all mail except an occasional letter or legal paper, took phone calls and saw visitors, and altogether kept the great bulk of the routines off my neck. I didn't think my repute would depend on how many times I signed my name.

Then there was an annual letter to each Supervisor telling him what the boss, after taking advice from his staff, thought of his performance. With a deep breath, I hid out for a couple of days and ground the job out. Two or three of the Sups had the unhappy faculty of making correct decisions in a brusque and heavyfooted way, to the end that the recipient was

hurt or mad and we'd hear about it in the office and have to smooth down ruffled feathers. So I undertook to instruct these guys in the virtues of courtesy and tact. About the only effect was to make them think I didn't want them to uphold the rules - or so they said plaintively. So I decided I wasn't tactful enough to write such letters and dropped the practice in a year or so. I never did learn how to make a tactless man tactful.

One of the streams of life blood in any organization is a regular and substantial budget for promotions in pay, large enough so that people doing good work have some chance of reward. When I took over, there was an arbitrary sum for promotions for the whole District, amounting to a fraction of one percent of the payroll, simply hopelessly insufficient. We'd get recommendations from each Supervisor and Chief of Office, each listing his people in priority. Then I'd have ideas about the recommenders.

Then the struggle began. There'd be about ten times as many people on the list as the budget could handle. You could promote about three clerks for the price for a Supervisor. My chief advisors, Bob, Pitch and Jay, usually disagreed with Supervisors about the relative merits of people on forests. I had a fine theory that the wealth should be shared between the office and the field, and among the eight or ten employee groups, such as second clerk, principal clerk, ranger, forest staff, Supervisor and so on. It would end up with some obscure second clerk, low on her Supervisor's list, getting the tag, while his top choice, a ranger, got nothing. Everybody, including me, ended up frustrated and dissatisfied, and several of us would be trying fruitlessly for the next year to explain "the

system" and its results to the recommenders. At least it kept a thin thread of promotion in the picture.

If all this sounds as if I was bothered, uncertain and serious about work habits, formal requirements and rituals, that's right. It was some time before I sat easy on the throne. At least I could tell myself I was trying, but I sure didn't have time or inclination to sit back and admire myself as a big shot. Happily for me, my gang pretty much treated me man to man, and except for public occasions, avoided any appearance of overdone or false deference. So I was mercifully spared any temptation to slip into the path of pride and vanity. It can happen.

Several other things of a different sort bothered me. One was whether to go it alone on field trips or to tie in with each of my Assistants in turn. I felt I had to learn how each saw and reported on things we had seen together. Red had gone it alone, doing what he considered general inspections. With the rigid field schedule, which tended to become sanctified and inviolate, I wasn't going to be able to command the guys on short notice to meet my conveniences or whims. Being unscheduled, I had some chance to fit into the plans of the others, and that was how I tried to do it, though often enough something that seemed urgent sent me out alone.

Another thing I stewed over was how or to what extent the group could be used as a staff. One trouble was that several of them regarded themselves as chiefs of their functional divisions. Period. Anything aside from their "own work"

was primarily an interruption. I don't think I made any fast or impressive breakthrough on this, but it was on my neck plenty. I did experiment some on it. I doubt that Red had thought in such terms.

I had already learned how very rigid the budget was, so fully committed to fixed salaries, special lines of work and so on, that Bob claimed there was no slack to take on new and creative jobs I was convinced were needed. Initially he sure led me around by the nose. Mere pride insisted that I had to crack the walls. There looked to be several possibilities, and all of them would require firmness and willingness to hurt somebody's feelings. Soon I decided that Division with special earmarked project funds - such as for timber surveys in Silviculture - would pay from them for clerical help, which they had not done. Wood got pretty mad, but I stood pat.

Then I found that Bob loved to take our limited savings and add a clerk or so on forests he thought needed them. So I started watching that and occasionally pulling the string, and Bob was mad about my interference. In general I had to try to learn ways to really know something about the budget without spending my life poring over figures. I began and continued to work on it, with slow and halting success in comparison to needs.

Of course I was acutely aware of my areas of ignorance, both geographically and by activities, and so were others. Grazing, forest highways and the formal recreational work in Lands were notable blanks. The facts stimulated my conclusion

that I had to get out with the several top men involved, which, due to dominance of fire in my first year, I had not done. To myself I sometimes wondered whether Bill Greeley had decided he'd made a big mistake in picking me.

From the start, Ed and I had kept in frequent and close touch - he was still vitally interested in the District, as was I in the Station. He, of course, took over Dune Dunning, and shortly Cary Hill and Products. The first big new project, selected by Ed and me, was the cover type mapping, and for it I cheerfully transferred A. E. Wieslander, a very good technical from the Lassen. The project aimed initially to produce respectable type maps, so all fires could be referred to type of origin and thus give us a basis for our studies of fire control and cover types. Such maps didn't exist. How the cover type project grew up and ballooned over the years!

In short, we had a large mutuality of interest in our new jobs. Ed was always pushing and skillful in trying to translate it into tangible help for the Station, and with a reasonably good batting average. Some of my people weren't too warm about it. But the main thing was that we could talk to each other, certainly to the benefit of ourselves, the Station and Region. We tried to train our people to do the same.

This winter of 1926-27 we had the annual investigative program conference - a fine institution. Since I presided, it gave a nice chance to push and pin down the researchers on dates for publication of results. I thought I knew the tricks of delay and stalling for "just one more year", and probably the researchers

thought I had an unfair advantage. But how the pressure is needed!

One thing, new to me, had to be learned fast - the Forest Highway program conference, and Frank Bonner and our Forest Highway specialist, the dapper Bruce Burnett, pounded and rehearsed me in a far more concentrated cramming job than any I'd done in school. We were up against a stacked deck. The State Highway and Bureau of Public Roads people wanted all the money to go on State and Federal Aid highways, and were cold and indeed sneering about the community interest jobs which were so badly needed and for which we were the only friend the unwealthy cow counties had. I don't remember much about the first round except that mostly we got outvoted after valiantly flying the flag. I found out how the battle lines lay, and shortly found out that if I got really stubborn, the Chief of B.P.R., one McDonald, would shove or cajole my Washington Office brass around and I'd get reversed.

So it was a really tough game to buck, and it took several years to learn how to beat it. Meanwhile, practically every place I went, County Boards of Supervisors and Chambers of Commerce, aided and abetted by my Supervisors, lay in wait to put on the pitch for their pet dream. So forest highways quickly became, and continued, a major part of my life.

The general course of things was that each year, after a battle, one or two of our projects would get in; each would take two or three years to finish; so we sneaked up a little on the proportion of the money that went into our pets. The word went around that the Forest Service was the friend of the cow

counties, and even though our rate of progress was depressingly slow in comparison to needs, county and local people could feel that some day their ardently desired projects would get done. So there was hope, and believe me that helped in obtaining local approval for the big land exchanges we were working up. I'll speak more of that later. And I always got a big lift when one of our jobs was finished and we had boosted some community out of the dust and mud of pioneer roads. Among many projects done over the years a favorite was the Lava Bed Forest Highway, ~~Canby~~ ^{Canby} to near Tule Lake on the Modoc. I always felt good about battling that one out, especially in later years when I travelled it to go duck hunting.

One thing was clear - this new job wasn't going to have many dull moments, and I would have to use all my capacity to learn if I held up our end in negotiating in games that were brand new. It sure was interesting and challenging, and I used to think what nice, simple straightforward jobs I'd had heretofore.

Another project to find out about was the special Southern California Improvement program - the "Million Dollars Bill" - which had been fought through by our citizen allies, aided by Greeley, after the last San Gabriel fire of 1924. Under it, given 50-50 matching with local funds, some of the desperately needed firebreaks, trails, telephone lines and so on could be built. The first year's program was sort of a hodge podge, dominated by George Cecil's ability to get almost unlimited matching money on the Angeles, and the great trouble the other three Supervisors were having to do likewise.

So in March, 1927, Bob, Jay and I went down to look it over. We walked out projects here and there, tried to stimulate cooperation outside L. A. County, and worked with Supervisors to get first things first. You couldn't say there was much planning - everybody's vision was of projects rather than of a cohesive system. That bothered us all and we began to argue about a new and higher level of planning. It was to take some years to arrive on that one, but we did recognize the job.

Then in April, 1927, Greeley, with Headley as Chief of Operation and Earl Loveridge, a bright and pushing young fellow, as Assistant Chief of Operation, came out to study in the field what could be done to cut down fire losses below the intolerable level of 1926, not only in California but in the Northern Rockies and the Pacific Northwest.

We assembled Supervisors and Rangers in groups at various headquarters and let them do much of the talking. Pretty soon it became clear that Greeley would sanction use of the blank check "Fighting Forest Fires" money where he was convinced of urgency. So Jay, Bob and I discussed privately what sorts of things to build up and plug for. As I recall, most of our want list was for additional people - fire deputies on several forests, some more Assistant Rangers, fire dispatchers and such, and an assistant for Jay, whose job was ballooning. Then we tried to coach Supervisors to sing the administration program song.

I doubt that we really fooled Greeley - he was a darn smart guy - but after about three weeks he approved our request, which we thought was pretty daring. It must have run to \$150,000, and that looked like big money in those days. Along the way, we

appeared at various public gatherings and Greeley amiably sang for our suppers. I liked that. Usually it was my chore. There was one rather undignified moment when we appeared before the boisterous Hollywood Breakfast Club. I was nervous about it, but luckily Bill's sense of humor withstood the strain.

There never was a Chief like Greeley. He got out and saw for himself, made up his own mind and acted on it. A field trip with him involved walking, not just meetings and riding the cushions.

Along the way with the Supervisor concerned, Bill took up the pending appeals - the grazing and fire case of the Rosascos, the bootlegging resort permittees, and the self-advertising college. On the Rosascos, Bill got old head Supervisors Benedict and Cunningham and said "Let me tell you a story". So he laid out the case, leaned back, lighted his dirty old pipe and said, "Well, what do you think of it"? Silence for a moment and then Frank C.: "Colonel, are these cowmen?" "Oh, yes," said Bill. "Then they're guilty as hell," opined Frank, who had been a cowpoke during his youth, and no doubt had set fires "to clear the range." Bill laughed and sustained me, and I breathed again. Bill had no sense of humor about fire. Later, the Rosascos appealed to the Secretary, and he sustained us.

No less than the President of Pomona together with other notables, appeared in L. A. "Col. Greeley," said the President with fervor and gestures, "the most sacred traditions of dear old Pomona are symbolized by that cherished letter which these heartless men (George and me) insist we abolish." Bill kept a solemn face and gently but firmly let the gents know that such things didn't fit into the modern scheme of National Forest management. Bill could be impressive as hell, when he stepped

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Later he just had fun kidding George and me about our lack of college spirit and insensitivity to sacred traditions. But we won.

On the resort deal, Bill looked regretful but opined the people hadn't been given proper warning, a chance to peddle their place and so on. So Ed had to back up and choke off their liquor business by watching them like hawks. Soon, lacking this lucrative sideline, they sold out.

I decided appeals were going to be a part of life, but that I wanted to at least know in advance when they were coming up to me, and started telling my people. Also, I learned that personal privilege is a very poor basis for sustaining a guy, meaning usually that the case is pretty weak. Thus one learns. I was really finding out in these days how ill-prepared I'd been for this job.

After that, I kept a private record of how I did on appeals from my decisions, feeling pretty sure my bosses wouldn't like me any better for dumping unsustainable cases in their laps. Lands and grazing were to be the problem areas.

It was on this trip, too, that Benedict, with ~~was~~ our support, put up his pet idea for organized crews to replace the lone guard in fast spread country, such as the great brush and annual grass zones along the lower Sierra boundary. Bill listened and then said, "Why, Ben, you aren't proposing a city fire department, are you?" Ben said he was, but Greeley couldn't see it.

One that one he was wrong. A couple of years later, with Bob Stuart as Chief, we tried it again and won - the start of the now almost universal system for first attack.

We were pretty happy about the new wealth and started in to get it in circulation. On top of the list were fire deputies for the Klamath, Shasta, Plumas and Sierra forests - perennial problem children. We chose old head district rangers with good reputations as tough fire fighters - Perry Hill, Frank Meyers, John Gray and Andie Wofford respectively, got them in to San Francisco and briefed them for a day on what their jobs were. We were 50-50 on our selections - two turned out very good, two not. Other additions to the fire force were allotted everywhere, and in total we got a step up in fire power and a big lift in morale. The latter was vital after two out of three rough and frustrating fire seasons.

This was my first experience in promoting new money for the field gang and I ended up convinced that was a job the boss had to take on, with help of course, but assuming the usually tough job of front man. This time, thanks to Greeley, it had been pleasant and easy.

Along the way I'd told Bill how ~~that~~ the State Chamber of Commerce, through its Conservation Dept. and executive Charlie Dunwoody, was pushing us for a fire improvement program for Northern California at least up to the level of the Million Dollar Bill. They wanted a special bill and had our loyal friend, Congressman Harry Engelbright of Nevada City, committed to introduce and push a bill, once we had a solid and defensible want list. Greeley knew that the State Chamber and Los Angeles Chamber were our central sources of political support for things of regional interest.

Bill gave an O.K. to go ahead, promising Washington support if we did a solid job of justification for our askings. Later, after Greeley left the Service, I got a neat double-cross from Headley.

Engelbright and Dunwoody, too, were firm about justification and that, by unanimous consent, was where I came in. We got the then customary list of askings from the Supervisors, dream figures for which the justification was "we need these because we want them." I could just imagine myself convincing the hard-boiled Bureau of the Budget and the Appropriation Committees of Congress. Lack of a sound basis for planning and of a planning process and technique sure loomed up like a brick wall on the road to better things.

I've already said that Ed and I were hurting to tackle the untouched question of forest types and hour control and had shoved Wieslander into building the necessary type maps for the twelve northern California forests. He was working at it but it was going to take at least another year. Engelbright and Dunwoody wanted action, but they couldn't have that and solid justification until the hour control thing was done. Engelbright wanted to bring out a Congressional Committee to study on the ground, and we just weren't ready for that. Dunwoody wanted the Supervisors, Jay, Bob and me to put up our program in chunks before his regional Conservation Committees.

So the whole question of timing and preparation was on our necks in a big way. Here I was again getting into a life dominated by fire. Fortunately the fire season of 1927 wasn't another 1926,

though there were big campaign fires and a big lightning storm on the perennial Klamath, Trinity and Shasta in August, and my time could go on constructive working toward a better fire organization, but it still left me feeling guilty about lands, timber and range things. On big fires Jay took on the job of getting there and doing what needed to be done.

We working out timing about this way. During late 1927 and 1928 the State Chamber got appearances and statements about the kinds of things we needed -but not definite dollar figures about the costs. Engelbright was convinced to hold off the visiting Committee till at least next year. Ed gave Wiess all the help he could and took over the job of referring the 10,499 fires, 1911-20, which we'd already used in our research, to the type of origin, and he and I reached a solemn compact to get to work on the analysis as soon as the raw material was ready.

But it was a nervous situation to stall instead of striking while the iron was hot. I was afraid the iron might cool on us.

By late June, 1927, I had to break away from fire. After taxing our three girls - now 12, 9 and 7 - over to Girl Scout Camp in Big Basin State Redwood Park, I hurried up to the Lassen. Steve Mather was out to rob us of a "frame" around his little old Lassen Volcanic National Park. Supervisor Bill Durbin and I rode for several days with the pushing Park people, and agreed in part, and disagreed in part with them. Then Steve showed up in his big and ponderous Packard with driver, and the latter got us stuck in the sands of the "devastated area". So I got out to push, slipped and wrecked

my sacro-iliac, about as much fun as having a hot knife poked in and twisted. In due course our Washington brass folded before Steve's assaults on several areas I'd adversed for transfer, and I learned what weak reeds and allies I had to try and carry along.

I drove uncomfortably home, got our family physician, Harvey Slater, to strap me up and, with my residual family, Mabel and Stu, drove more comfortably to the isolated Sequoia headquarters at Hot Springs. There the job was to ride out a big road project then under study - the climb from the foothills to Greenhorn Summit and then a road along the ridge. Bob Deering, Chester Jordan, Supervisor Frank Cunningham (friend of my Shasta days) and other local officers and I put in several days at it, and we approved start. Frank had selected camps at points from which Chester and I could easily reach streams and we had much fun in catching messes of trout. It was the first time as District Forester I'd had a chance to combine business and pleasure and I sure liked it.

I'm sure that it seems strange today that the boss could take time to ride out impending roads, as I did for some years. You have to remember that the demonstrated use of the big cat and grader on our little old roads, and the impending invention of the trail-builder, with adjustable blade in front of the power had suddenly made it possible to build our roads far more cheaply and faster than with the still used horses and Fresno scrapers. Our dominant interest was in fire roads and there was a job to decide what projects came first, what general

location, what standards of construction. Each Supervisor, of course, had many pet projects which he urged eloquently, and most of them were appealing. Anyway I thought I had to get 'out and see for myself.

Let me take another minute on this. In the first year or so, my advisers and I agreed to concentrate on projects that would open up or give primary access to the really big roadless areas with high fire hazard and a fire history; to locate roads on ridges rather than in canyons, thereby giving fire fighters a downhill haul; to build the simplest possible roads, just wide enough for a stakeside, rolling the grade to take advantage of easy ground and light ~~xxx~~ excavation, outsloping to get maximum natural drainage; what we got were roads on which an expertly driven sedan made a maximum speed of 12-18 miles an hour - if you didn't meet someone. They were terrifying to many drivers, and men who believed in "sound engineering principles" shuddered and screamed about them, but we got a lot of miles of usable road fast and cheap, and that was our only aim. We didn't give a damn about public convenience or service to resources. We coined the name "motorway" to connote what was wanted and Chester started in to train up a group of construction foremen to build what the bosses wanted. Some of them, like Basil Brown, prided themselves on doing rough and hairraising jobs.

I should add that on ridges the roads weren't engineered. The boss tied a few rags on the brush and the machine operator did the rest. Indeed, Jay and I jointly and severally laid out pieces to show hesitant foremen and supervisors what we wanted.

I was uncontaminated by sound engineering principles; Jay had been heavily exposed, but rose above them, Imagine a Regional Forester today messing into road location and standards! But it was fun and construction gangs knew the boss was watching. So shortly I convinced myself I was a pretty hot dish on fire roads and there was no one to say me nay.

This breaking open of the fire road deal quickly gave a great boost to morale! Supervisors and rangers, if they weren't getting attention today, could look forward with hope. They all started scouting out projects and the bosses liked that.

From the start I loved to ride or walk out proposed projects and later to watch the building and talk to the working guys. I had to struggle to resist temptation and spend too much time on such things, but with partial success.

After this digression I'll note that I picked up Mabel and Stu and proceeded to the Stanislaus.

There was a conflict of interest between Woodbury and Barrett on the expanding recreational area at Strawberry Lake - whether to cut the big, high value trees or to leave them. I went over it with Supervisor Jesse Hall and after much argument decided in favor of leaving the area uncut, primarily because I had no faith, based on Dunc Dunning's and my experiences, that the area, if cutover, would be anything but unsightly. It was probably a bad decision, but I was much impressed with the desirability of keeping our recreational customers happy. As I recall, the best Wood proposed was a standard timber sale job of marking, supervision and cleanup and plenty of unsightly

samples were just across the road.

Then I went over the Calaveras Forest Highway as a step in training on such matters, zipped home, collected our sun-browned daughters from Scout camp, and was ready for the next one.

There was ~~bt~~ nothing small about Steve Mather's imperialistic ambitions to expand his National Parks at our expense and nothing nice or dainty about the methods he used to further his ambitions. In 1927 he was pushing on the High Sierra in general and the Kings Canyon in particular, ~~was~~ even though a couple of years before he'd been in a deal whereby he got the Upper Kern area with the understanding he'd drop it there. But, like Russia today, an agreement was good only so long as it was to his advantage.

So Jesse Nelson worked out a ten day pack trip on the Sierra which would give me a first look at the San Joaquin part of the High Sierra and at the grazing problems of that troubled area. The pro-Park people made grazing the primary point of attack on Forest Service administration and, of course, we defended it vigorously. So in August we took off with Supervisor Benedict, lesser lights and a very loud-mouthed packer, from Jackass Meadow and wended a leisurely way. From Red's Meadow we rode out and explored to the north, then headed south via Bear Creek, Silver and Seldon Passes, Hart Lakes and finally to Florence Lake, where my car met us. My friend, Ward Shepard, was out from Washington, inspecting something or other, and I didn't have to twist his arm much to get him to go along. The day's ride would end in mid-afternoon and give plenty of time for fishing. I met up for the first time with the lovely and tasty little golden trout. We ate

fried fish till they came out of our ears.

At our last camp at Hart Lake I caught a real mess of fat little fellows, cleaned them, cooled them overnight, wrapped them in my bedroll, and eventually got them home sweet and fresh to my family. The trick of taking care isn't hard -if you know it.

The whole grazing thing bothered me, but I didn't think I knew the answer offhand. One thing was clear - we didn't have any resident ranger attention to this high country. Whatever "administration" it got was from sheepherders and cowpokes on one hand, and packers and tourists on the other. When, as was routine, animals and tourists occupied the same place at the same time, there were bound to be hard feelings. We were going to have to do something besides stand pat on the status quo, but just what was the question.

~~xxxx~~ One depressing and disillusioning conclusion I got out of the trip was confirmation of my suspicions about the alleged science of range management. Nelson, Benedict and the attendant rangers all belabored me with the catch phrases of the trade - "commensurability, dependency, utilization factors, forage acre and so on", but to anyone who would use his eyes and knew even the rudiments of botany and soils, it was obvious that mountain meadows and adjacent slopes were going to rot, the old cows overgrazed where they liked it and passed up the less comfortable areas. The cow owners did most of their range management catching trout and enjoying camp life. I was assured of the virtues of allotment management plans to solve all, but apparently the cows hadn't read them.

My gang was so terribly earnest and sincere about the false picture they saw because that's what they wanted to see and so

evidently convinced that with experience I'd learn to see what they saw that I didn't have the heart to talk rough. Anyway, it was far from clear just what I'd do.

So it was a fine trip with good people, I got a look at a new piece and kind of country, and got hold of a new kind of problem to stew about. My education in the limits and bounds of the new job was moving to some uncertain end. At least I was working at something besides fire.

About the only cheerful note was word that Greeley's Park-Forest Coordinating Committee of 1926 had knocked out Mather's proposed Park Extension. A small victory that no doubt enraged the arrogant gentleman, but failed to stay his ambition.

In the fall I knocked out time for land exchange and mass recreation (lame Lou Barrett's domain), and of timber sales (Woodbury's). The General Exchange Act of 1923 provided that national forest stumpage and/or land might be exchanged for private land and/or stumpage. On several forests- Shasta, Tahoe and Sierra particularly - some really big chunks of private cutover land were in various stages of negotiation. The dominant rule, imposed by Sherman, was to get the maximum area of cutover land (even if it was wrecked) at the minimum price, and it had to be pretty good before he'd approve \$2 worth of stumpage for an acre. Residual stands of fir and cedar that the loggers hadn't thought worth taking, commanded an allowance of 10 cents per thousand as estimated after culling the ^rgross volume about 75%. So it wasn't a giveaway program, but even the very big owners would usually reluctantly agree, after a prolonged trading routine, to the far from lush allowances. They saw no future for cutovers. The myopic Sherman wouldn't initially let us even look at stumpage, though

there were great areas and volumes on the bargain counter.

q I've already said that our land exchange program was dominated by Associate Forester E. A. (Smoothy) Sherman. He simply refused to consider areas of uncut timber, since the cost per acre was sure to be higher than for cutovers. He loved to brag discreetly about the low price per acre.

Needless to say, I dissented entirely. Anyway there was a very attractive and insistent proposal from one Stratton of Meadow Valley, Plumas, for a small piece of fine timber. He needed it, since Woodbury was working out a sustained yield program with the lumber company, and this piece was really needed to firm up our hand.

When Greeley showed up, I tackled him with all the arguments and fervor I could muster. He pondered and spoke, "Why, yes, Bevier, I'll be glad to approve that". I sure felt good at putting a small crack in the wall. Sherman, of course, didn't like the decision - or me - but Greeley was the unquestioned boss in his own home.

Anyway, there were several big deals all ready to sign up, trading completed, but Lou cautiously wanted them to be looked over by some high brass. Walking was a labor and pain to him. So I spent some time with Balknap, Goldsmith on the Shasta, Millard Bernum on the Tahoe, and Burnett Sanford on the Sierra in seeing what we would get - at least enough to satisfy Barrett and be able to defend the cases on review by Washington.

Lou always wanted assurance the boss was behind him, and when, as was common, there was a conflict between the District and Washington, it was my decision to fight for.

His was a very different attitude than that of the others, who wanted to make decisions and have the boss approve them. So I found myself sliding into trying to see lands problems and cases on the ground, so I'd have some knowledge about them. I enjoyed it but it did take time.

I guess there's no doubt I'm a land grabber at heart. After the Shasta years, where every phase of the job, every lofty aim, was dominated by private land, the owners caring little if any about public aims, a chance to recapture the ownership so lavishly tossed away was a great incentive. So the time I put on exchanges was gladly and enthusiastically spent. Here again I was doing kinds of work I suppose bosses don't do now, but it seemed important then. Getting more land for Uncle by any means available became a ruling interest early.

One exchange case in which I had a particular interest and a particular part was approved in September - La Moine Lumber and Trading Co. In my youth on the Shasta I'd helped prepare the sale of intermingled National Forest lands. I'd walked and climbed back and forth to the sale many times. And after 15 years, the sale finished and the mill burned down, I'd received the smooth Jew, President Rosenberg, who jumped into the land exchange trading after negotiations on price had bogged down with Barrett. I think I offered him a "bit" more per acre and he snapped it up. Thereby proving to his hired help he was still the best dealer. I felt good to see another piece of the status map change from an irregular checkerboard of government and private land to a nice and lovely government monopoly for future forest officers to have fun with.

I'm afraid I had less enthusiasm for the not too much ~~time~~ time I spent on timber sales. The new fire code, designed to stimulate the loose practices which had caused so many devastating fires, was still in process of being worked out, and I always took a close look at it when possible, trying to firm up sometimes timid crackdowns on recalcitrant operators.

On two forests, Stanislaus and Lassen, well worked out experiments in "modified" slash disposal were underway. Slash was piled and burned on only part of the sale area, and the resultant savings were used for really intensive extra protection. I went over these carefully with Woodbury and the local officers.

On most sales the level of damage from donkey logging was high, even with the best control possible by some pretty good sales officers like Burt Hurt and Bill Price. I had a deep hatred for it, but no better alternative was available. Use of the big tractor for yarding was in its infancy, and under our contracts we couldn't force operators to change from donkeys to cats. So mostly I just suffered - not a very effective contribution to better things. Woodbury and his crowd and the Supervisors pretty much accepted that if you didn't go along with the lumbermen on prevailing practices, somewhat modified, you didn't do business. And we were expected to do business to make the Budget Bureau and the Treasury Dept. happier.

As to ^{map} ~~working~~ rules, Dunc Dunning at the Station was working ~~sixthxseventh~~ out the system of tree classes, based on the laboriously measured permanent sample plots on which he and I had worked so many months. When it was done and put into effect it was far

superior to the old rule of thumb methods.

As will be noted, a good deal of my attention to sales was on fire control phases.

There was, in mid-September, an interregional marking board of pundits and experts to study marking in the yellow pine of Southern Oregon and Northern California, and I was there. The two regions were going different ways. We were concerned with reserving trees to insure the classic aims of silviculture - growth, reproduction and forest improvement. Our neighbors were concerned with giving the lumbermen the most profit, and willing to make optimistic assumptions about silviculture. I don't remember that we got together.

So the season of 1927 wound itself out. At least I put in a respectable amount of time on things other than fire and learned a little about some of my main areas of ignorance.

Then it was Board of Review time. In the North it had been a "less difficult" season; the South had come up with its usual several major fires. We decided to do the Lassen and Modoc, just to give them the benefits of finding out what a real sharp post-mortem was like. The Big Game was in Stanford Stadium, won by my Alma Mater 13-7 on Biff Hoffman's famous bootleg play. I had to desert Mabel to fight her way out alone so I could make a fast run to catch the train for Susanville.

The high spot of the northern trip was a "bean party" put on by Mrs. De Camp at Alturas. Ed Kotok and I, in the interest of livening things up, started a series of raids on the gatherings

of opposing teams and the party really loosened up, to our hostess' horror. But everybody else had fun. Then we all had to attire ourselves in long-bearded party dresses and hats of bygone years. The party nearly disintegrated at sight of Jay Price in a decolette mauve creation, with matching picture hat perched enticingly over one ear. All of us independently saw him (or her) as the very image of - shall we say - the professionally bad girl. Such were our simple pleasures.

On the way to L.A. on the Sunset I came up with a violently painful left arm assembly - back of the neck to finger tips. I went around all screeched over, thinking it was a temporary muscle twist. But it got worse instead of better, and between the regular sessions and the night appearances George Cecil had arranged, I was having a bad time. When we got to San Bernardino I went to see my official and personal friend, Doc Bayliss. He shot me full of sodium salicylate, which maybe helped temporarily. Also Ed got a prescription for a quart of "Spiritus frumenti" and left me to navigate painfully and alone while he dashed along to get it filled and to assure himself it was good stuff.

I was barely man enough to toddle with Jay, Ed and Bob to the Southern California-Washington football game in the vast Coliseum, the one in which Southern California knocked out Tesreau on the first play, and the great Morely Drury went on a solo scoring rampage and got a stunning ovation as he left the game. During the P.M. a growing pall of fresh smoke settled down. Jay went to phone, and he and Bob took off for the 8,000 acre Plunge Cr. (Swiss Alps) fire of December 9 on the San

Bernardino. As for me, I wasn't fighting any fires. I hurt too much.

The trip back in our stateroom with Ed to watch over me was no fun. Ed showed his sympathy and concern by an occasional shot.

Then of course I started the rounds of the doctors, and in due course Ward Cooper, nose and throat expert, opened my rotten tonsils were it, or ought to be. I couldn't go for the surgery right away, for my life was complicated by the fact that the first western annual meeting of the whole Society of American Foresters was due next Monday in San Francisco; I had a major paper to give;

I hadn't done a scratch on it. So Ed generously came down to our house for a couple of days and pushed the pencil for me and took the results up for typing. Reading my effort - which dealt rather impolitely with the practically non-existent state of private forestry in California - was an effort, but at least I didn't collapse. I even made it to the banquet, at which I had chores, and got home late and worn down. Next A.M. in the cold gray dawn, with no coffee or food to lift me up, Habel walked me over to the hospital. I got a glorious and happy jag from the shot of "twilight sleep" and practically enjoyed the extraction of the tonsils. Afterward it wasn't so much fun and I judge I was a cranky patient for the day I spent there.

Anyway after several days at home feeling sorry for myself, eating and drinking very little with that impressive sore throat, I recovered enough to convoy my flock to the Christmas party and do my appointed stint. The operation was a success - no more neuritis or whatever. Waiting it out at home was alleviated by

our first radio. Also I reread my favorite Shakespeare plays.

By the end of 1927 it was clear I'd been practically a genius in getting Jay into the fire job. As messes developed or were building up, he got there under his own power without any pushing. Then the situation would start improving and would soon be in hand, though there were never any newspaper stories, such as Red had loved, about the big shot arriving to take over personal command. Shortly he had the respect and regard of the hard-bitten fire fighters in the field. And steadily and unspectacularly he pushed ahead on betterments in personnel and performance on the National Forests and in the State service. He was invaluable.

Early 1928 ran busily with things that were now routine - I was a veteran of nearly two years. There were various meetings. The program conference with the Station, the trip with Jay and Bob on Southern California Improvement, Forest Highway program conference, the promotion hassle and the day by day dealing with affairs in the shop.

Also there was a new wrinkle in the Forest Park business - appointment by Governor Young of the new State Park Commission, with old line park stalwart Will Colby as chairman. Lou Barrett and I had premonitory qualms, rather expecting it would follow the rather tactic and try to build by raiding the National Forests. Being simple and honest souls, we invited Colby and retired Stanford Professor C. R. Wing, who was shortly appointed as executive and whom I'd known since 1892, to talk informally. My position was that we'd cooperate through land exchange, value for value, if the Commission elected to deal on an ethical basis,

but would fight raids. We felt good when they chose - and thereafter followed - the honorable course. I always thought it was a model of how governmental agencies should operate.

We were flirting with the idea of poking a protection road into the vast, inflammable and roadless mass of the Santa Barbara, Santa Ynez drainage, in which monstrous fires had burned in 1922, -23 and -24. Headley was out in February, and with him, Chester Jordan, Supervisor Mendenhall and assorted local officers, I rode and scouted out possible routes for some days. I gave them a green light, we bought a little Bay City 3/8 yard gas shovel, and started the first road into the huge sea of inflammable brush.

Routines at home busted open when in March Mabel came down with a violent gall bladder attack. She'd had them before, but not like this and one night Harry Reynolds and Harvey Slater commandeered her to the hospital and did the protracted surgery right now. Then there were three weeks of hospital. Our twelve year old, Barbara, manfully and successfully took on the mother job when I had to go to San Francisco. The church ladies made up an aid program whereby a fine, abundant and hot meal was delivered every evening. As Barbara likes to recall, we never ate so good. We got through.

Then, since the type of origin for the 10,499 Northern California fires 1911-20 was finally worked out, Ed came down and we got a healthy start on "Cover Type and Fire Control in Northern California Forests" which we finished later in the spring and which appeared as a Department Bulletin the next year.

We still didn't have a system of hour control by types, but the job helped keep Engelbright and Dunwoody from losing their enthusiasm.

Finally Mabel got home and the family routine reestablished itself.

One new thing in the shop that winter of 1927-28 was a directive from Greeley to prepare proposals for a system of "Wilderness Areas", from which roads, buildings and formal recreational developments would be barred. The sound idea was that such things, especially roads, would, unless halted, work into every nook and corner of the mountains and thereby forever destroy a kind of country and a kind of forest recreation which had been a cherished part of the American way. The formula spoke firmly against including large areas of presently or imminently prospective "commercial" timber; was vague on including speculatively commercial stands of the "inferior" species - the true firs; accepted grazing as consistent with the areas to be designated; bespoke the widest possible distribution of areas. I'm sure Greeley and his advisers, Kneipo and Sherman, expected that in addition to doing what ought to be done, the program would take off some of the pressure of individuals and organizations, led or stimulated by Mather, to transfer great areas of National Forests to the National Parks.

Troubled Lou Farrett came limping to my office to talk about it. Since today the story of how the job was worked out here is either unknown, ignored or distorted by rancous proponents of bigger and better wilderness areas, I think it's worthwhile to

tell it. Of course many others had fractional roles in the final result, but essentially the child was the offspring of Lou and myself.

First of all, we accepted the idea without reservation. Second, we began to study the formula. Nothing was said about the level of fire hazard and we were committed to building fire roads into areas of medium and high hazard. Nothing was said about inclusion of private land, though we had recently tried and failed to block road access to an isolated private area. We weren't too sure we could insist on a right-of-way permit, loaded with expensive stipulations. And we feared the exchange program, as dominated by Sherman, would look coldly on the kinds of private lands found in the high country we'd be studying. As to stands of inferior species, we would have to roll our own. As to scenic or recreational quality, we would have to be very broad minded and flexible if we got much in Southern California, and certainly that big, mountain-using community deserved attention.

As to minimum size, the formula was silent, and we would have to accept relatively small areas if we did much in Southern California. Nothing was said about consultation with private people, but we felt that Sierra Club leaders, with a deep and proper interest, should be consulted and could be helpful.

So Lou and I made up a modified formula: keep out of areas where fire roads looked to be essential; accept no more than a relatively small proportion of privateland; accept scattered or patchy stands of inferior species; work for the best quality and largest size possible, but get areas on each National Forest.

With help of others in the shop, we worked out a first list of suggested areas to consider, and Lou started to deal with Supervisors. Their initial responses varied from enthusiasm to a sort of feet-dragging passive resistance, and shortly Lou and I were agreeing that where we had doubts about sufficiency of Supervisor proposals, I would ride out the areas and form an independent judgement. Lou couldn't ride. So I took on another subcaliber job, but I didn't feel that way about it. It seemed creative and it was setting a new Forest Service policy and program of greatest concern to many people.

During 1928 and the next several years, I made about half a dozen trips to look over what became the big High Sierra area and the two big ones in Northwest California. From time to time Lou arranged meetings with the Club leaders - Will Colby, Duncan McDuffie, Walter Huber, Francis Farquar, Walter Starr. They at least knew what we were doing and why. Of course they were enthusiastic about the general idea.

I always got a rather low and sinful joy out of the fact that the Forest Service originated this creative program, though then and later the Park Service spoke well of itself as the one and only true protector of the mountains.

Lou handled the vast job of preparing maps and reports, and by January, 1929, our first 14 areas, totalling about 1 1/2 million acres, went in and in due course were approved. I got into the drawing of boundaries, and some of them were a meat-axe job, done with full expectation that future revisions would be needed.

In N.W. California, the maps were grossly inaccurate and sketchy, so we just did the best we could. Mostly I think we did a pretty good job, considering the low level of data on the high country.

This year of 1928 had another big new project designed by Earl Loveridge to bring under planned control the highly varied local work habits developed by each forest and ranger.

Rangers had always had great freedom to plan and do their jobs in their own diverse ways and many bad habits had developed. Nearly everywhere their lives were dominated by fire, and policy demanded that rangers spend much time on telephone and trail maintenance; that they personally inspect lookouts and guards once a month; that they go to as many fires as possible and go without fail to all those over ten acres in size; that on protracted suppression jobs they stay till the end; that they work out all possible law enforcement cases; that they take care of tools, equipment and warehouses. The policy was sternly enforced.

Three years earlier I had worked out for Red an analysis of selected rangers' diaries, which showed that 3/4 of their working year went on fire. Much of the work could be done by subordinates, if they were available. But they weren't.

One general result was that rangers went out from their stations to spot jobs, and back in the same day. So they would be there if fire broke. Grazing and timber were getting the short end, and Nelson and Woodbury were depending on staff specialists rather than rangers - not a good thing. Then each ranger had worked out his own pattern of how much time to put in on each job and from district to district these allowances varied greatly.

End of season generally found a list of undone jobs, especially after a tough fire season.

Loveridge's plan involved several steps.

1. Listing "subcaliber" jobs, to be done by someone else.
2. Setting time and frequency standards for each ranger job - for example, one day twice a year for inspecting a 5,900 acre range unit.

3. Making a field trip and file and diary analysis to work out a complete job list and time allowances for it.

4. Listing jobs that had to be done in particular months - for example, installing guards in May or early June.

5. Juggling job lists to come as close as possible to equalizing work schedules for each month. Spring was always overloaded.

6. Juggling some more to arrange jobs in trips, rather than doing them by one day out and in shots.

Earl had asked to work with Fitch on the trial run, and I agreed gladly. Then we were committed to doing the big job on all ranger districts and Fitch began to work on me to sit through some of them. The first district on a forest would take a couple of weeks, with the Supervisor there to be trained so he could do the other districts.

So during 1928 I went through the job on three diverse districts with Fitch - Santa Ynez on the Los Padres with Ranger Harry Valentine and Supervisor Mendenhall; Salmon River on the Klamath with Ranger Tom Sigelow and Supervisor Douthitt; Mineral on the Lassen with Ranger Bill Williams and Supervisor Durbin.

On the last, Bob Deering was along for his education, and he, Bill Williams and I played vicious games of 5 & 10 sclo. Bill and I took Bob - he was just too cautious for our dashing style.

It was all very instructive to me. I'd never had much direct concern with the realities of ranger district administration and I sure could use all I learned. I'm sure that in return I gave the job and Pitch prestige, and they needed it, for many Supervisors and rangers resisted stubbornly any change in local habits fixed by self-determination.

Pitch, of course, slugged it out with such, and out of it all we got a major step ahead in better planned and executed work, and better use of the scanty dollars for ranger spending. No formula could solve the problem of the wreckage of a whole season's schedule when the ranger was tied up for three weeks on putting out a big fire and mopping up bills, accounts and equipment afterward. This unpredictable gave the final plans an air of unreality, but the job was worth doing.

On one general question of forest work I got little aid or comfort - what to do about the growing number of staff specialists who were doing ranger caliber work, assigned in theory to rangers. The basic trend was dictated by very real necessity - rangers weren't getting "other" work done, and no pretty plan or exhortation was going to really change the situation. I had fought the trend in the Spring Revolution and at the Denver Conference of 1925, but after the three district analyses I was not so sure. Fire simply had to come first in rangers' lives.

It looked as though the best we could do was to continue

the Feather River School, try to pinch off as many dollars as possible for hired help to do subcaliber jobs and reluctantly use the staff specialist system where we had to. That's how it was done. But there was another large unanswered question in my life.

Although the 1928 fire season got off to a running start in May, for several months I pretty much let Jay sit on that lid. Besides my time using obligations on the Wilderness Area and job planning projects, I became de facto Chief of Silviculture when in May Woodbury left on a long vacation. Fate at once stirred things up in the timber line and Tony Dunston, Wood's assistant, said he had to have my active help.

Pickering decided he had to get an operation going on the Modoc, where the bugs were slaughtering both his great pine holdings and the National Forest pine as well. Negotiations and plans had to be done right now. There were new wrinkles to work out, such as a winter time salvage logging project to cover country fast. I cut as many corners as possible, ignoring cherished rituals, and we got the show on the road.

Then for the first time the haughty and aloof Walkers of Red River Lumber Co. allowed they'd be interested in a combined sale and exchange ~~if~~ if the terms were right. One of the terms was that stumpage ~~at~~ prices for our stuff couldn't be stated in dollars. The Walkers just didn't want County Assessors to have such evidence. That one I solved by the formula that one sugar pine volume unit ~~was~~ i.e. 1,000 ft. board measure was worth 12 white fir units. We all understood that a value unit was two bits. Their cutovers went in at 10 units. All this was counter to

established ritual, but rather to my surprise, the Washington brass went for it and even opined we'd made a pretty good deal. Wood, I thought, was surprised and a bit shocked I'd taken my acting assignment so seriously, but Pickering and Red River were accomplished facts on his return. I'm afraid I got low pleasure in showing that self-imposed rituals could be kicked in the teeth.

And I testify there's no better way for a boss to learn about a Division's work and people and attitudes than to be de facto Chief of Division for a while. Nor is there a better way to learn research and researchers than to do personal research.

Of course, besides these functional jobs I got in quickies to several forests. One was to the Modoc, where Supervisor George Lyons was hurt. One P.M. a fine smoke boiled up out in the flat pine country and Executive Assistant Billy Brown and I rolled over. The Ranger was galloping around trying to decide what he'd do and the firefighters were sitting around. So I tagged a Fish and Game guy and gave him half the crew and one side and I took the other, and we went to work. By the time the Ranger got back in late PM, we'd controlled the 200 acre fire - another case of just doing the obvious and not assuming you had a major fire. I probably said some impolite things.

Then Mabel and I decided on a new plan for a family vacation - moving into a vacant Forest Service house at Mineral. About September 1, day before I was to drive them up, I went along to the office. Phone rang and Shasta Supervisor Jones demanded me up on account of the great Stevens Pass fire out in the McCloud cutovers. Jay was frozen on some other fire, so I apologetically

phoned Mabel to unpack and flew up. I think first use of a plane to transport Forest officers to fire. It was one of those that should never have been. First a guard boobed a little lightning fire. Then the Fire Deputy boobed a little bigger one, and then the fire took off. In a few days Jay showed up and I beat it for the very bad mess that was meanwhile building up in Southern California.

For the first time in history, all four forests were in big trouble at once. A heavy pall of smoke lay over the Southland. I got out on George Cecil's Ridge Route fire on the Angeles and Santa Barbara, and on Gus Boulden's Mill Creek and Coahuilla fires on the San Berdo, but never made it to Joe Elliott's Beauty Mt. fire on the Cleveland, which ended up at 166,000 acres inside and out - at that time a record. I tried hard to get desperately needed overhead from anywhere, but with the north in trouble, it was hard to come by. I began to see that my role on big fires wasn't to try to be a fire boss, but to see things for myself, decide when or if a change of command was required or when fresh leaders had to be drafted. As even very good leaders get more and more fatigued and punchy after days with little rest, they start making major blunders and that is where an already big fire can be lost all over. It takes a pretty high boss to pull such men - they always want to stick. Jay did far more than I in recognizing the point for quick action - he was on many more fires - but I'd learned my own lesson in this year of 1928. It's lots easier and less bothering to build line.

I had to break away from the South and hustle back to the Shasta to meet my new boss, Bob Stuart, who had taken Greeley's

place that spring. I rubbed his nose in the fire problem, pushed on the fast developing Engelbright fire bill, took him to meet some of my field gang, gave him a brief spell in San Francisco, and said farewell without regret. He was so different from Bill Greeley.

Someone had plastered us with the requirement that every employee write a detailed description of his or her job - why I don't remember. The deadline was on my neck during the Southern California fires and I remember putting in a hard night grinding out my own. To my surprise, it was in due course selected for printing and general distribution - one of my minor claims to fame. At least I had a theory of my job, though I wouldn't claim I always followed it slavishly. But even now it sounds pretty good.

Bob and Pitch shoved me into reading a lot of them. I remember some office and forest clerks made it look as though we were wasting money on Asst. District Foresters and Supervisors - the clerks were sure important, they said.

There had been a bad fire mess on Sequoia Park and Forest. Fire started on the Park, was fought casually and ineffectually, and ran into the Forest, where it got bad. So the Forest took over and feelings became seriously embittered when the Park Superintendent gaily issued a news release telling what a spectacular sight it was from a proper vantage point in the Park. Hardly an endearing move to guys sweating to put out someone else's mess.

Then the irrigation people got mad at such light treatment of a serious subject. Charlie Dunwoody of the State Chamber

wanted a big public meeting about it - which would only have put out the already bright fire by throwing a bucket of gasoline on it.

So Jay and I went down to try and restore some resemblance to peace and especially to give the Park guy some way to save face without publicly admitting he'd put his big foot in it.

Our meeting of invited people only started in an atmosphere of frigidity and mutual distrust. The Park men marched in stiffly and sat on one side. Ditto the Forest guys. Just one crack and there was going to be war.

For half a day Jay and I palavered around, getting a picture of the fire problem generally. Then when guys would talk to rather than at each other, the next half day went into getting an agreement from both officials and citizens to support the Park Sups. urgent request for a real fire control organization - which he didn't have. So everybody except the newspapers was happy. They had hoped for a nice juicy story of interservice war.

The aftermath was that through channels, Steve Mather asked me to nominate an experienced Forest officer to head fire control in the Park Service. I put up Mendocino Sup. John Coffman and made a trip to Willows to get him to take it. He did a fine job.. And from then on the Forest Service didn't have to handle Park fires. Jay and I felt pretty good about it all. It put another sizeable chunk of rural real estate under some sort of organized protection. A brief five years earlier only the National Forests were even attempting protection - and the landscape showed it. Anyway it was progress.

The year 1928 saw various things come to pass, all in the direction of a better future. Governor Young appointed a new State Board of Forestry, chairmanned by the able and aggressive ex-Governor ^{Pardee} ~~Pardee~~. Shortly the new Board came forth with a plan to cut the intolerable fire losses which were so frequent on the vast State-protected area.

The State Park Bond Issue passed by a big majority and the eminent Frederic Law Olmsted was hired to recommend a list of proposed State Parks which he submitted in January, 1929.

On the National Forests the Government won a big suit against the Feather River Lumber Co., Plumas, for damages caused by a 1924 fire. That put teeth in the still relatively new fire code on timber sales, and gave operators something to think about. The code, more and more firmly enforced, was paying off.

A new law withdrew much of the Angeles from mineral entry, thereby blocking much blatant racketeering in sand, gravel and chickengrit claims made solely to blackmail public utilities into buying the fellow off to clear title on essential rights of way. I'd worked with Cong. Harry Engelbright to get him to acquiesce. He was the recognized champion of the mining industry on legislation affecting it. Their attitude was "give us a completely free hand and let us alone". I felt good about the small victory.

The first fire weather forecasting station on a going fire was set up on the Monterey Division.

The first attempt at a comprehensive plan for recreational use and development for a whole forest was done for the San Bernardino. The universal practice was to deal with each small area by itself under pressure from users, and this lack of planning

was inevitably producing messes, as I now well knew.

On the personal side I was able, for the first time, to join Wood, Jesse Nelson, Jack Berry and assorted locals for the institutionalized annual quail hunt from abandoned Wilder Ranger Station on the Mendocino. It was mighty fine to get out with a shotgun again. We all shipped limits the first night and then got some more birds to take home. Wood and Jesse were devotees of different breeds of partly trained dogs, and the rest of us got amusement over the shouting, cursing and whistle-blowing that rang daylong over the countryside.

Then hard-heartedly and reluctantly I left my family just before Christmas on command to chairman a session of the Annual Meeting of S.A.F. in New York. I never did like the place. Then to Washington for a spell, and back home.

I was getting a bit easier and surer on my job - and high time, too.

A final personal note: on October 16 new Forester Stuart wrote a long and pleading letter, saying I was the choice of the W.O. brass to succeed the late Girvin Peters as Chief of Public Relations in Washington. Then there was a long personal letter from Roy Headley, urging and begging me to take it.

Mabel wanted me to take it. I didn't, for various reasons which I set forth as persuasively as possible in a long letter of my own. And so I wiggled off that hook with no regret. It was not to be the last one.

A last note about 1928: The figures showed 1,211,295 acres burned on State protected land; 348,491 acres on Forest Service

protected lands, including large areas outside the National Forests. With records like that you just had to give first attention to fire.

About the time I got back from Washington in January, 1929, our friend Congressman Engelbright introduced his bill. It was soundly designed to give the Forest Service continuing annual appropriations so that we could build the many things needed, and hire many more people for the protection organization. The expected result was that fire losses and suppression costs would be very greatly reduced. He had a commitment that a strong Congressional subcommittee would tour California after Congress adjourned next summer to study the program on the ground.

So the heat was on Ed and me to produce our long-promised "Home Control and Forest Type" job. By dint of great labor at the Station, all the thousands of individual fire reports 1921-28, had been abstracted, and some of the basic computing work done.

That was where we came in.
We quickly got together and worked out a first decision.

The odd numbered recent years 1923, 1925, 1927 had been less difficult in fire control: the even numbered and alternating years 1924, 1926, 1928, had been more difficult as measured by numbers of fires, rate of spread, area burned, damages and costs. So we agreed to analyze the contrasting groups, expecting sanguinely that we could work out the kinds of answers so urgently needed. So from February into April we alternated sporadically between his home and mine. There were of course interruptions from our regular jobs that couldn't be ducked, but we plugged earnestly ahead, shortly finding that our hopes on results would be met. And so it was after the most intricate and complex analysis we had attempted.

Of course we felt good, also relieved, and began at once to push the massive and slow-moving Branch of Research in Washington to do a fast job on technical review and editing. I'd had more experience than Ed in these needlessly time-killing processes. We'd taken the precaution to get Engelbright to announce firmly that he would hold hearings on his bill in early 1930. So we had a prod of a sort, which we didn't hesitate to use. None of the recipients seemed to like it.

The windup will appear next year.

Meanwhile some of the interruptions. The Hachford Range Reappraisal was being "reviewed" by one Dan Casement, a midwest cowman appointed by the Secretary. Casement's whole idea and mission were to scale down the entire structure of fees as proposed and as thoroughly justified by the massive study. So he showed up and didn't like my probably vehement arguments. He finally went ahead with his preconceived plan.

Then we bought a little gas shovel to start digging a strictly one-way road into the vast inflammable brush area of the Santa Barbara. It was a real tough show on those steep and unstable mountains, and I just had to get down to see how it went. It was a spectacular success, far faster and cheaper than any other available method.

The California District was far out in front in finding out about big machinery on our little old mountain roads, and later in the spring on the Santa Barbara we were hosts and leading participants in a big interregional show and demonstration of all sorts of such equipment that manufacturerers and their peddlers thought might capture part of the growing market. Of course I had to go there too.

One day our professional road locator came in and said sadly there was no way to get our little gas shovel road through an awesome escarpment that loomed ahead. So Jay Price and I snorted; "Hugh! - we'll show you guys". It could have been the valor of ignorance.

Next A.M. we started out with a lunch and no surveying equipment. One tiny, feasible-looking gap in the otherwise unbroken wall of rock appeared, and we plodded up there, decided happily it could be made to do and tied a piece of handkerchief on the lone and bedraggled tree that marked the spot. Then we started slanting down hill on an estimated 15% grade - the maximum allowable - and when we ran into too much rock, we declared a switchback and tied another piece of handkerchief on a bush - no more trees - and roughed in another leg. We soon ran out of handkerchiefs, used our lunch bags as markers, and finally had to put in the last switchback with orange peels from our vanished and forgotten lunch.

Of course, when we got back to camp, right tired, we acted nonchalant and rather sneering and told the guys "Hugh! - nothing to it. Just follow our markers and you'll make it". And, in fact, in due course that's where the road went in, with some difficulty I'll admit. Jay and I got a sinful kick out of showing that technicians aren't infallible. And I suppose we preened ourselves offensively about our outstanding talents as road locators. Jay was wonderful on these rough and tumble jobs.

The year of 1929 went along at a hop, skip and jump pace, with Ed and me doing our best to concentrate on hour control. There was a meeting of Ed's Experiment Station Council, at which

I finagled an instruction to start fire research without delay. Ed didn't like orders.

Fires were already getting big in early March - another grim season ahead. Then old head George Cecil quit as Angeles Supervisor to go with the Los Angeles Chamber of Commerce, and I had to run south to shuffle Sups. on the four Southern California forests and stand off several high power delegations who were sure their choices were better than mine. I tried hard to get Benedict to take the Angeles, but he ardently didn't want to leave his Sierra and Northfork little kingdom and I didn't want to get tough.

In early April I chairmanned a meeting of the Fire Protection Board, set up by Greeley, and made up of top people from the agencies responsible for hill and mountain lands. I was trying for greater effort and better working relations, but there were some weak reeds.

And then Modoc Supervisor George Lyons died from burns caused by an exploding gas lantern and I went to Santa Barbara for the services, as I always tried to do for our people. His successor was Fred P. Cronmiller. It was called a grazing forest and he was a grazing man. In July the record Sugar Hill fire showed that it was also a fire forest, and we had a new unit to add to our already long list of worries. The fire season was going tough. Jay particularly was getting run ragged.

I had little enthusiasm when in June Earl Loveridge came out to make a Supervisor work load analysis and plan on the Sierra, comparable to the now completed job for rangers. We found out, as I suspected, that a Supervisor's life can't be predicted and

scheduled that easy, and the plan gently expired.

There was a big Fire Prevention Conference of the 11 Western States, at which I of course had chores, and which endorsed the Engelbright Bill.

I'd been painting and staining the house a piece at a time at odd moments - like Sundays. For family vacation, Mabel and I decided that after the fiasco of 1928, the only safe plan was to rent a place in the country; I'd get them up and back, and visit briefly when I could; for the rest they'd be on their own. So our old Shasta friend, Bill Gracey, got a place in Nevada City, where they all had a fine time, and where our son, Stu, began to learn to fish, and the girls took many pictures with their cheap little Kodaks.

While they were gone, I got in a paper hanger to do a much needed job. Stu and I had started - in a small way - to collect stamps, which I hadn't done for many years. It still was fascinating.

In mid-August the Dickinson Subcommittee came out to study on the ground the proposals of the Engelbright Bill. We'd worked hard and seriously to plan and schedule the trip in detail, and Hutch had made a dry run to check on running times, places to stay, etc. We thought it would be good business not to keep them on the fly for long and wearying days. We met and started on the Shasta, and Supervisor Jones had been told firmly to restrain himself on trying to show everything in one day.

Then the first fly in our careful plans showed up. Judge Sandline of Louisiana, the real character of the three, came down the first morning, for which we'd planned an 8 o'clock start, and as we were ready, decided he wanted a barber shop shave. The

Chairman made no move to object and who was I to do so? After the ~~show~~^{have} the Judge sauntered around and talked to people for half an hour, and we got away about nine, cut some running out of the day and got them in by five. So we realistically added a correction factor to our prized schedule.

Another personal foible began to appear on the Shasta when a member from the flat midwest showed strong signs of disturbance about our little one-way dirt roads, and we had to travel them to put on our show. At first it was just a case of trying for ostentatious care in driving - and our guys were so used to whipping over them that slowdowns came hard. Ed and I took turns trying to beguile the guys' attention - with but partial success.

From the Shasta we rolled to the Plumas and then on to Northfork and the Sierra. Sup. Benedict's top priority was to show them the Madera Sugar Pine cutovers, which we had just acquired under exchange. The Sierra was busily pulling ties from abandoned railroad grades and spiking parallel twelve inch planks over the many wooden trestles which spanned gulches of varying depths, and Ben's normal driving was rather casual, nonchalant and fast. As I feared, our midwest friend just froze as Ben zipped up to the first trestle and went across. As the day wore along without disaster, he would put his head down, close his eyes and I guess pray.

I was afraid we'd lost a friend, but at the hearings on the bill in Washington he spoke strong words about how important it was to build safer roads for fire control.

A visit to the Angeles finished the trip.

We made loyal friends, most of all because they were impressed with the character, competence and devotion to duty of the field gang, and because our proposals were sound, well thought out and well justified. For our part we learned about planning, conducting tours for visiting notables. They can't be shoved around and some slack in scheduling is a must.

Despite the helpful fact that the State had some good new fire laws and bigger appropriations. That we had modestly greater sinews of war, medium and large fires just kept occurring. Many of the embattled field gang got pretty worn down and jumpy. Anything like normal inspections was uncertain or impossible. I made short trips to several forests, to take a look for myself. Two or three times I was able to spend a hurried weekend with my family, and to get them home at vacation's end.

On one trip, Earle Clapp of Research and Ed Kotok ran me down to urge and beguile that I take the Directorship of the new Forest Survey. But I couldn't see it. There was still such a long ways to go in my present job and so many ways in which I thought I might do some good, that I'd have felt I was running away.

Early next year Earle got District Forester Granger from the Pacific Northwest Region to take the job. Chris, I think, liked Washington better than I.

Then in September Mabel had to have her tonsils out and I returned the compliment and got her over to the hospital and back. Such things were rougher and more trying than today, and she hurt a good deal.

On through October and November and into December it still didn't rain. We bravely went ahead on the Feather River School and Board of Review. Both had to be heavily interrupted to go out or go home and fight fire. I'd had to make a quick trip to Ogden on an all-west fire program to be presented by District Forester Kelley on the almost imminent Engelbright bill hearings.

Eventually - day of joy - it rained, December 8, in northern California and weary men could relax a little. In the South it didn't rain till January 10, 1930. The Griffith Park fire of December 20 killed people and there were Christmas Day fires in that harassed land.

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Early next year Earle got District Forester Granger from the Pacific Northwest Region to take the job. Chris I think liked Washington better than I. One of the last and most damaging northern fires was the Fulga burn of mid-November mostly on Diamond Match Co. lands on the Lassen. It slashed through thousands of acres of very superior second growth. Company officials were highly indignant. It was one of only two California pine operations claiming to do a forestry job.

Eventually under Jay's skillful leadership, a new kind of protection set-up was devised - the North Butte Protection District - and proceeded to do a good job.

In mid-December, just after it rained, the Annual Meeting of the Society convened, with the central theme commemoration of the 21st anniversary of the setting up of the California National Forest Region and headquarters. I had the lead paper, "The National Forest Enterprise in California" and I had great trouble working it out in bits and pieces on trains and in hotel rooms. I still think it's one of my things that could have been worse. Forty-three of the original District people were still in active service.

In late October new President Hoover appointed a committee of distinguished citizens to study and report on disposition of the vast, untended and punished Public Domain, the scattered remnant of the unreserved public lands. It was clearly a portent of a big off-National Forest job, for Bill Greeley was on it, and he had long believed some of the lands should be added to the National Forests. So Lou Barrett and I began to figure and discuss how it was to be handled. It was clear that I was going to take a major part in trying for a good job, above the level that could be expected of technicians and Lou, of course, encouraged the idea. The idea of breaking away from the normal confines of my job appealed to me.

So with ~~xxx~~ the admirable Christmas party, and a little leave to continue the home betterment program, the long and troubled year of 1929 closed.

I thought but wasn't sure that the new year would see us getting involved in jobs and projects of an interregional nature or not directly tied to the strict boundaries of my regular job.

Certainly I hadn't learned all I needed to about that - I never did - but I thought that after four busy years I had a fair level of knowledge about it and about my people. So I doubt that I shuddered about the change to come in my official life.

You'll recognize that a main part of my job was ability to hop from one kind of thing to another and to forget about the first and focus on the second. It's so easy to keep worrying "Did I do the right thing" and thus fail to absorb your new problem. Things that came up to me were automatically problems. I think I learned the trick or art or whatever fairly well.

Collaterally I had to learn to "cram" to a far higher degree than in school. Often I dealt with staff and outsiders to whom the one particularly thing was the center of life. To hold my own I had to - for a moment - know as much as anyone about it. Then my excellent "forgettery" would take over till the next time.

Sometimes I wondered what technical knowledge had to do with it all. Work habits were mighty important.

Spreading Out Thin

. In saying that I'd learned something about my job and people, I mean that work habits had pretty well settled down; that routine inspections made mostly to see and appraise my people were far less needed; that I'd learned a fair amount about geography and formerly unfamiliar problems; that recurring annual affairs, such as the Forest Highway Program Conference, the Research Program Conference, the Feather River School, Board of Review, took much less time in preparation; that with Jay Price in Fire Control I was far more a free agent to work on other main aspects of my job. Among these aspects was representation - speeches and talks in public - and I was pleased to be told that in 1929 I'd appeared more often - sixteen times - than any other forest officer.

The great depression, signalled by the stock market crash of October, 1929, was on. Despite President Hoover's utterings about recovery being "just around the corner", down went all the things that had made ours a growing economy. I doubt that any of us in the Forest Service had any real idea what it would mean in our own modestly growing economy.

For one thing, Barrett and I had pushed ahead on land exchanges in 1929. Proposals to acquire 91,000 acres had gone to Washington; another 75,000 acres had been examined and would go in soon. By law, when a case went in and was advertised, we had to say that the money to pay for the land would come from such and such timber sale or sales. On the Sugar Pine Investment Co. (Trinity) case, involving a very fine buy of uncut timber, we'd been bold and spread the payment over a ten year period,

assuring our big, long term sales would go on yielding golden eggs as they always had. The counties were being almost incredibly amiable in letting income go to another, often distant, county and thereby cutting down their own income from the 25% fund. During the \$1,347,000 record timber sale year of 1929, about \$174,000 had been peeled off, to Woodbury's lack of joy, for exchanges.

The depression wasn't very old till some of our big and staple purchasers, with markets more and more scanty, began to plead for a moratorium on contractual cutting requirements of so much per annum. The pleas simply had to be granted. So Barrett and I began to get shocks, as our assets decreased or vanished, and our time customers wanted their payments on time. We solved it without going to jail by some nervous reassigning of obligations to other, still operating sales. But we sure had to slow down the pace of exchange. Counties of course got unhappy as their incomes dwindled and we couldn't promise them much, except more of the same. I met with several county boards of supervisors and helped our local guys hold the line.

Then of course some of our very good timber sale officers just didn't have jobs, and simple justice required that we keep them on somehow or other. That usually meant we didn't hire the young junior technicals to keep our professionalizing program going, so it slowed down. Believe me, it's not as much fun to entrench and cut down as it is to expand and grow. For the last quarter of 1930, sales receipts were off over 25% from the year before.

As the depression deepened - not all at once but with an air of inevitability - all our customers were affected. Grazing permittees, resort people, summer home owners, all began to seek relief from paying in advance. They got it.

The brighter note was that early in February, 1930, hearings on the Engelbright bill were on. I went in to Washington, labored earnestly on technical testimony, appeared and gave it. The committee was courteous, knowing I was an untutored son of the west, not the usual Washington bureaucrat to whom they listened.

Then Ed and I tackled seriously the undone task of getting our "Hour Control" manuscript from its hopeless place at the bottom of a large stack over in the Dept. office of publications. There it had been put^t by one Dr. Merrill, who was impervious to our best pleas. But Doc did have a boss, Milton Eisenhower, a very smart and self-assured young man.

Ed and I first concerted with Harry Engelbright, and prepared a strong letter from him to Bob Stuart, head man of the Service. In it he described very accurately the nature of our baby; said if such a manuscript existed it should be published at once; said that if the Service and Dept. were unable to do so, he would see to it that it was published as a House document; and please advise. As Harry grinned and summoned a messenger, Ed and I grabbed a taxi and were waiting for its delivery. We just happened to get into Stuart's office at the right moment.

Bob was moderately dumb and certainly smelled a rat, but he signed ~~xxxxx~~ our carefully prepared reply. It said that, by a strange coincidence there was just such a manuscript by Shaw and Kotok; that it was buried in the Dept, from which strong efforts

had failed to move it; that decision on releasing it would have to come from the appropriate official of the Dept., Dr. Milton Eisenhower. So we delivered the reply.

Then, since the day was young, we asked for an immediate audience with Milt, got it and handed him the letters. He knew he was being fiddled, addressed some impolite words to us, then yielded with some grace, and summoned Doc Merrill. "Doc", he said, "take that manuscript of these smart guys, put it on top of the stack, and get it through". Doc argued earnestly about commitments, promises, state of the Dept. printing budget and such. Milt just repeated, "Do it". It was published in August - blinding speed.

Ed and I, of course, were pleased with ourselves and said some impolite words of our own to Earle Clapp, boss of Research, and then told him the true story. Galley and then page proof began to come over from the Govt. Printing Office so fast it made your head swim.

Then, as the depression was reflected in decreasing government revenues, the President and his hired man, the Director of the Budget, got less and less inclined to approve new or increased appropriations, no matter how good the case. Congress mostly felt the same. So the depression began to really bite me.

In March it became clear that the whole plan of the Engelbright bill was dead, but in lieu there was a modest increase available for fire control. That meant the usual problem of dividing among the claimant districts of which we were one of the big three. Then Rutledge of the Intermountain District demanded a completely irrational and unwarranted cut, was refused, and

started to turn political heat on his own boss - not a nice or accepted tactic.

Bob Stuart, who hated discord and unpleasantness, aided and abetted by my ancient enemy, Roy Headley, called a meeting of the District Foresters and selected others, to devise a sound plan ^{for} ~~for~~ division and for other purposes. I was put as Chairman of the key committee, which had one vote only for each District. It was to recommend the division among claimant Districts. At our first meeting it was clear that Rutledge was inflexible and unyielding. Either the rest of us yielded to his imperious will, or we wore them down and whipped him. It had to be the latter.

It settled down into a straight slugging match that went on for weeks. We'd meet, have arguments, take a test vote, and adjourn. We were expected to get an unanimous committee report. At times the representative of Rutledge would get sick and Dick would run in another loyal henchman. I stayed well and mulish. Meanwhile, the other committees were finishing their work, having reports approved at the general sessions, and then doing not a great deal. My daily report was simply "The committee is not prepared to report".

Bob Stuart would ask hopefully if we couldn't compromise. Headley wrung his hands and counted the daily cost. I told Bob there could be no compromise and told Headley if there was any topside discipline we wouldn't be in the mess.

Finally one Saturday I told the committee I proposed to prepare a majority and a minority report and submit both to the whole group for action. I did the preparation over the Sabbath.

When the tense and expectant crowd gathered Monday A.M., I stated my purpose. Everyone knew what had been going on. Then Rutledge accepted his licking, stood up and said, "There is no minority view". So the fireworks were over, and I made a lifelong enemy, and the spoils were distributed fairly;

There was much bitterness, which would do the Forest Service no good at all. Ed and I stewed over it, trying to figure some way to ease the tensions. Finally, in our Common Club room, we decided to prepare a treaty. By some miracle, my long hand draft survived. Here it is:

Treaty of Washington

Whereas the race in competitive armaments, in National Forest finance, no less than in wider fields, must in the end make liars out of honest men, and whereas, the exercise of undue and unrestrained imagination in picturing estimated cost to complete, and necessary cost for adequate, must lead to constant bickering among ourselves and with our Chief, and whereas, no intolerable burden should be placed on our own imaginations and our bosses blue pencil; now therefore, to the end that these evils may be avoided, and that we may live at peace one with the other, we, the undersigned, as lords of our several domains, do hereby covenant and agree each with the other, and all with our Chief, That hereafter international peace shall be held more precious than allotments, and parity more dear than reactions.

Done in this city of Washington, this ____ day of April, 1930,

A.D.

*And whereas with external enemies rounding
our flanks and rear, we must either hang
together or hang separately*

We got it elegantly enc scrolled, and Ed talked a highly reluctant Rutledge into presenting it at a dinner we all gave for ourselves and selected Washington brass. Dick did an impressive job; we all solemnly signed, and it was presented with a flourish to Bob Stuart, who was pleased.

I always thought it did help. Now I suppose that, like other milestone documents, it's forgotten.

Well, that was my first foray, as a District Forester, into interregional affairs. I'd won, but I earnestly hoped I could hereafter participate without making enemies. Time will tell on that. This protracted battle became known informally as "Battle of the Potomac".

About when I got back home my title was changed from District to Regional Forester, over which I was monumentally ^{very} impressed. Far more important, Jay Price was elevated to Assistant Regional Forester in charge of a full-fledged Division of Fire Control.

Lou Barrett and I worked out a plan for the Public Domain study: general exploration both in California and over a liberal strip of western Nevada, where many of our grazing permittees fought it out for range; detailed studies by some of our grazing staff men of how and by whom that great area along our eastern ramparts was used; collection of maps which might help the explorers; preparing status - i.e., ownership - diagrams of the hundreds of townships we were going to take a look at, a laborious chore done by George Miller; etc.

Soon it was school out time. I moved my family again to Nevada City, where the children soon got scarlet fever. I was alarmed, remembering the rough time I'd had thirty years earlier,

But theirs was a far lighter dose, Mabel got them through, there were no bad after effects, and they went ahead on vacation.

Then Jesse Nelson and I, in my fine new Dodge official car, took off east and north from Reno into the great "unknown" with its horned toads and coyotes. We took field beds, grub, extra water, gas, oil and spare tires, which by the way we never needed. It was a thinly peopled land. Here and there was a home ranch, and at these we stopped and talked to the guy. The uniform story was the savage fight for feed; the range not so good any more; the stock weighing out lighter; the little swales and meadows gullying out. It all confirmed what we saw for ourselves - a punished and deteriorated empire. We meandered north up to Sheldon Antelope Refuge, down over the great rim into Coleman Valley, where for a time we didn't know whether we were in California, Nevada or Oregon. Then we looped back, took a look at much land surrounding the Hodge, and so back via Nevada City.

Out in the vast area the maps were poor, and the little old dirt roads worse. It looked as if they hadn't been maintained since the first McKinley election in 1896. I had plenty of chance to practice the driving trick of side slipping around the deeper ruts and high centers, and thereby staying in one piece.

Then I took lame Lou Barrett on several shorter and easier trips around the edges of the Great Central Valley and into the south Coast Ranges.

It was all a depressing eye-opener, and we all agreed that something should be done about it quickly - transferring large tributary areas to ~~our~~ our administration and care.

Long before the field exploration was done and our final proposals worked out, I had a chance to report to the politically potent statewide Conservation Committee of the State Chamber. I was dubious about Al Spencer, the stockman member, but he vigorously supported my preliminary proposals and the committee did too. Later at the Annual Chamber meeting, Al was the forthright and successful sponsor.

Encouraged, I tried my hand at higherups of S.P. and Santa Fe Railroads, the two great Auto Clubs and others who had, or ought to have, an interest. For each I built the appeal around what I felt was the particular interest - for the railroads it was sustained tonnage; for the auto clubs an unknown land for their members to roam and enjoy.

I had surprising good luck in obtaining assurance of support when proposals reached that stage. I had naively believe that the Forest Service would move on the whole program aggressively.

In early August, Jesse and I took off again from Reno for our big southern trip. It went through Goldfield and Kohala; Beatty and across Death Valley near Stovepipe Wells, with a quick side trip up to Scotty's Castle; then up the long climb up Lost Emigrant Wash over Eisenhower's Tall Road which had gas drums of water set along side every few miles; through Darwin and onto 395; through Warner Pass and down the tortuous Kern Canyon Road and on to Bakersfield. The large picture was what we'd already seen.

By then our men's fine reports on the incredibly scrambled mess of competing users were coming in, confirming that something positive needed to be done, for the stockmen more than anyone else.

Lou, Jesse and I figured we'd done an honest and reasonably thorough job and so the large task of preparing reports and proposals got under way. The main problem in going east was where to stop. There was no natural boundary till you got to Salt Lake City. Finally I decided to use a simple dirt road that came somewhere near marking the east boundary of our permissive claims for use. After that I left Lou to struggle, except for putting on the case at the Annual Meeting of the State Chamber, and signing boldly the reports which went in about November 1st.

Of course, in September I got my tribe back to school, meanwhile being affluent enough to have fine oak floors laid downstairs.

In our family life, 1930 turned out to be a year of decision. Mabel and the children yearned for a bigger and better home - as we had intended for four years. But Barbara was already in high and Betty was nearly there; college for four was foreseeable; our medical expenses had just about prevented fluid savings; one thing after another had to be done for family necessity, comfort and convenience; there had to be yard and household help; and so on. So I had the unpleasant and highly unpopular role of saying "no" when we made a family inspection of various fine places which were on the bargain counter. We were on so tight a budget we couldn't afford a family car. One more major medical bill would have ruined us financially. So the course was to improve and better 376 Addison, a piece at a time. I didn't know anyone who was going to bale me out of financial imprudence. And if anything happened to me - a few years of living from my grimly held insurance policies and then disaster. So - and I disliked it, too - I had to accept my role as "head of family". Pardon the digression. It

was all very heavy on my neck.

Anyway, through 1930 I was still paying off doctors; interest payments were heavy; school ~~my~~ expenses kept growing;.. so I had to refinance the mortgage.

Officially it was the usual busy fall, but no big new jobs were on or impending. We had worked out urgent adjustments in living with the depression and the pace of things was slowed; I think we began to see that people on a regular fixed salary were, relative to so many others, well off.

Ed and I left for Washington on Christmas Day. I had a paper on Hour Control to give at the Annual Meeting of the S.A.F. My poor long-suffering family. Dates for such things weren't set for my convenience.

There was no nourishment in trying to promote new and better sinews of war, and a good deal of interest went out of life.

The year of 1931 opened and continued under the growing and deepening pall of the depression.

Finally in early March I called a Supervisors Meeting - the first during my regime - dealing with personnel and plans. Anyway the gang liked getting together again.

Fires in the South started in January, and in the North in April, and it shortly began to appear that we were in for another "more difficult" season to join 1924, 1926, 1928 and 1929.

A severe blow fell when, in May, it was decreed there would be no more promotions. The depression started to affect every forest officer.